

## **TECHNICAL FISHERY REPORT 92-11**

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Alaska Department of Fish and Game  
Division of Commercial Fisheries  
P.O. Box 25526  
Juneau, Alaska 99802-5526

September 1992

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### **Abundance, Age, Sex, and Size of Coho Salmon Catches and Escapements in Southeast Alaska in 1987**

by

**Demarie S. Wood**

The Technical Fishery Report Series was established in 1987, replacing the Technical Data Report Series. The scope of this new series has been broadened to include reports that may contain data analysis, although data oriented reports lacking substantial analysis will continue to be included. The new series maintains an emphasis on timely reporting of recently gathered information, and this may sometimes require use of data subject to minor future adjustments. Reports published in this series are generally interim, annual, or iterative rather than final reports summarizing a completed study or project. They are technically oriented and intended for use primarily by fishery professionals and technically oriented fishing industry representatives. Publications in this series have received several editorial reviews and at least one *blind* peer review refereed by the division's editor and have been determined to be consistent with the division's publication policies and standards.

ABUNDANCE, AGE, SEX, AND SIZE OF COHO SALMON  
CATCHES AND ESCAPEMENTS IN SOUTHEAST ALASKA IN 1987

By  
Demarie S. Wood

Technical Fishery Report No. 92-11

Alaska Department of Fish and Game  
Division of Commercial Fisheries  
Juneau

September 1992

## **AUTHOR**

Demarie S. Wood is a Fishery Biologist for the Alaska Department of Fish and Game, Division of Commercial Fisheries, 304 Lake Street, Room 103 Sitka, Ak 99835.

## **ACKNOWLEDGMENTS**

The author would like to thank Karl Hofmeister, Andy McGregor, Keith Pahlke, Scott McPherson, Jan Weller, Linnea Neuman, Anne Hausmann, and Lane Johnson for their supervisory and sampling efforts. Leon Shaul supervised Coho Research Project personnel in the collection of escapement data at Hugh Smith, Salmon Bay and Ford Arm Lakes; Fred Bergander supervised personnel in collection of escapement data at Crescent, Chilkat, and Chilkoot Lakes; and Art Schmidt, Steve Elliot, and Dave Barto for supervising sampling at Salmon Lake, Yehring Creek (Taku River) and Redoubt Lake, respectively. Escapement counts and age, sex, and size data were also provided for returns to Crystal Lake Hatchery by Bob Zorich, to Snettisham Hatchery by Ron Josephson, to Klawock Hatchery by Steve Hanson, to Auke Lake by Jerry Taylor from the National Marine Fisheries Service (Auke Bay Laboratory). Meg Cartwright and Tom Cornett (Canadian Department of Fisheries and Oceans, Whitehorse) headed up the sampling of coho salmon caught by gillnet and fishwheel gear in the lower Taku River and Steve Hoffman for the weir on the Karta River.

Appreciation is extended to Scott McPherson for his development of the computer programs used to summarize the age, sex, and size data in this report, to Scott Johnson for providing listings of peak escapement counts, and to Doug Jones for his interpretation of the NOAA, National Climate Data for the average winter temperatures. Special thanks goes to Craig Farrington for his aging of escapement scales, and again to Scott McPherson for his supervision of scale aging activities. I would also like to thank Jim Blick, Andy McGregor and Leon Shaul for providing the revised sample size table needed for proper data analysis.

## **PROJECT SPONSORSHIP**

This investigation was financed with Anadromous Fish Conservation Act (P.L. 89-304 as amended) funds under Contract NA87-ABD-00301, and with U.S./Canada Pacific Salmon Treaty funds under Cooperative Agreement NA-87-ABH-00025.

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## ABSTRACT

Commercial troll, purse seine, drift gillnet, and trap fishermen harvested a total of 1,356,277 coho salmon *Oncorhynchus kisutch* (Walbaum) from Southeast Alaska waters in 1987, excluding set gillnet catches and escapements in District 182, 183, 185 and 192 near Yakutat. The hand and power troll catch of 1,041,140 coho represented 71.2% of the total harvest, and 81.7% of these were caught in outside waters. Purse seine fishermen harvested 122,294 fish and drift gillnet fishermen 163,953 fish. The combined commercial, sport, and subsistence harvest was 1,410,423 coho salmon. Special harvest area cost recovery fisheries conducted by private hatcheries harvested 40,392 fish, and the Annette Island Fishery Reserve fisheries harvested 30,713 fish. Smaller harvests were taken in ocean sport fisheries (50,284 fish), by Canadian commercial gillnet fishermen on the Stikine River (5,728 fish) and Taku River (5,599 fish) and by Alaskan subsistence fishermen (107 fish). There were 1,976 fish taken in the test fisheries in the region for the year.

Small differences were found in the age and size composition of coho salmon commercially harvested by gear type, area, and time. Fish aged 1.1 and 2.1 dominated the catches in all areas, except that fish aged 3.1 and 4.1 made up a greater portion of the troll harvest in the southern portion of the region. The average lengths of coho salmon increased over the season. Fish aged 3.1 tended to have a larger average length than fish aged 2.1 and 1.1.

The 1987 data collected from all fisheries and escapements show an overall decrease of 17.7% in age-1.1 fish as compared to data collected from 1983 to 1986. In the purse seine fishery the decrease in the age 1.1 fish from 1983 to 1986 was evident in the southern inside (29.0%) and in the northern areas (29.0%). This may be related to a lower return of hatchery fish or to weather conditions which may have affected the growth of younger fish in freshwater. Data from areas where no hatchery return is expected, also shows fewer numbers of age-1.1 fish in Districts 111 and 115. The numbers of older age-3. and -4. fish increased in proportion to the decrease in the age-1. fish in all fisheries, except for the District 104 and 113 purse seine fisheries.

Fish aged 1.1 dominated samples from the five hatcheries and at the one special harvest area operated by the Northern Southeast Regional Aquaculture Association. Escapements to the 25 wild stocks sampled were composed of fish aged 1.1, 2.1, 3.1 and 4.1. The mean date of fish passage through weirs which were operated to count coho salmon ranged from 07 September to 24 October. There were 82 coho systems surveyed with counts of 25 fish; these varied from a low count of 27 to a high of 11,281.

### KEY WORDS:

Catch allocation, age composition, migratory timing, coho salmon, *Oncorhynchus kisutch*, fishery synopsis, smolt, catch and escapement, Southeast Alaska

## INTRODUCTION

Coho salmon *Oncorhynchus kisutch* (Walbaum) are important to the commercial, sport, and subsistence fisheries in Southeast Alaska. Annual commercial harvests between 1960 and 1986 have averaged approximately 1.4 million (ADF&G 1988); between 1977 and 1986 sport harvests have averaged 46 thousand fish (Mills 1988). Most coho salmon are harvested in mixed stock fisheries, and most originate from approximately 3,000 streams in the region. Hatchery-produced coho from the 10 hatcheries in Southeast are a major component of the run in several areas. Coded microwire tag data reveals that non-Alaskan fish are also intercepted (K. Crandall, Alaska Department of Fish and Game, Juneau, personnel communication); these originate mostly from rivers or hatcheries in northern British Columbia, although some are from as far south as Oregon.

Southeast Alaska consists of the coastal waters and inland drainages from Cape Suckling to Dixon Entrance (Figure 1). The region is divided into 20 coastal districts, Districts 101 through 116, 181, 183, 186 and 191; and five offshore districts, Districts 152, 154, 156, 157, and 189. In this report we exclude the Yakutat Area inshore set gillnet fisheries in Districts 182, 183, 185, and 192, which are presented in Pahlke 1989. Sport fishing occurs throughout the region but is generally concentrated near communities. The only permitted subsistence fishery allowed for coho salmon is in the Salt Lake/Hasselborg Creek area in Kootznahoo Inlet near Angoon. Coho salmon may also be taken incidentally in other subsistence fisheries. Coho salmon were also harvested in waters adjacent to hatchery release sites by commercial fisheries or by hatchery corporations for cost recovery.

The objective of this report is to document age, sex, and size composition of catches and escapements of coho salmon in Southeast Alaska during 1987. This information enables management to evaluate run timing and run strength, stock compositions based on age or scale pattern differences, brood year returns and exploitation rates, the distribution and magnitude of escapements, escapement goals, and to forecast the following year's returns. Size data is useful for monitoring growth parameters, environmental variability, and gear selectivity. Migratory timing information can be used to identify interannual shifts in run timing and to predict run strength during the season. This data is needed to develop management plans that maximize the production and harvest of coho in the region.

Data pertaining to the transboundary river stocks was collected in cooperation with the Canadian Department of Fisheries and Oceans (CDFO). Detailed information on age, sex, and length compositions of troll, seine, and gillnet catches and daily weir counts in 1987 can be found in Wood (1991). Information on coho catches and escapements in the Yakutat Area in 1987 are reported in Pahlke (1989). A complete summary of regulations affecting the 1987 salmon fisheries of Southeast Alaska exists in ADF&G (1987). Management plans, and Board of Fisheries reports (ADF&G 1988) further summarize the 1987 troll and net fishing seasons.

In 1987 the exvessel value of the three major coho fisheries in Southeast Alaska totaled \$16,281,147 (G. Oliver, Alaska Department of Fish and Game, personal communication), approximately 24.3% of the total exvessel value in the combined Southeast Alaska commercial salmon fisheries.

Coho salmon were the second largest contributor to the exvessel value of the troll fishery, totaling \$13.5 million, or 47.2% of the total revenue to the fishery. In the purse seine harvest the coho catch was the fourth largest, \$0.94 million, or 9.8% of the total revenue to the fishery. In the drift gillnet harvest coho salmon was also the fourth largest contributor to the exvessel value: \$1.8 million or 4.8% of the total revenue to the fishery.

## **METHODS**

### ***Harvest Statistics***

Commercial catch data, i.e., number and total weight of coho salmon sold by gear type, district and week, for Southeast Alaska were compiled by the Division of Commercial Fisheries, ADF&G. These data were based on computer tabulations of individual sales slips, or fish tickets, as of 27 April 1989 for troll and 19 April 1989 for purse seine and gillnet fisheries. Because of the possibility that all data entry or recording errors were not corrected prior to those dates, later summaries may differ slightly from those used in this report. Such errors were believed to be too small to be of consequence to the analysis of the commercial catches by gear type, area, or time.

The average weights of troll-caught fish were based on dressed, i.e., gilled and gutted, fish. The seine and gillnet fisheries landed both dressed and whole fish.

Canadian commercial fishery catch statistics for the Stikine and Taku Rivers were provided by the Canadian Department of Fisheries and Oceans, (CDFO, Yukon Territory, personal communication). Subsistence catch information was tabulated from subsistence permits returned to ADF&G. All subsistence permits were not returned, so the reported subsistence catch totals listed in this report underestimate the total subsistence harvest from the region. Alaskan sport catch information is based on a mailout questionnaire survey of randomly selected residents holding sport fishing licenses (Mills, 1988).

Catches are reported by statistical weeks which begin at 0001 hours each Sunday and end at 2400 hours each Saturday. Weeks are sequentially numbered beginning with the first full week of the year (Appendix A.1).

### ***Smolt Counts***

Counts of coho smolt were taken from fry traps in the outlet stream of Salmon Lake. The coho smolt enumeration procedure used by the Sport Fish coho research staff at Salmon Lake are further described in Schmidt (1986, 1987, 1988).

### *Escapement Counts*

Estimates of spawning escapements were made using airplanes, helicopters, boats, foot surveys, and weirs. Multiple surveys were made on several streams, but only the peak counts for streams where 25 or more coho salmon were enumerated are reported. The mean date of migration and associated migratory timing statistics were calculated for coho salmon passing through weirs using methods described by Mundy (1984).

Weirs were operated on 13 streams to count adult coho salmon on their upstream spawning migration. Weirs were operated by ADF&G on 10 of these systems: Hugh Smith Lake, Karta River, Klawock River, Salmon Bay Lake, Crystal Creek, Yehring Creek, Snettisham Hatchery, Salmon Lake, Redoubt Lake, Ford Arm Lake, Chilkat Lake and Chilkoot Lake. Weirs were operated by CDFO on two Taku River tributaries, Little Tatsamenie Lake and Hackett River, and by the National Marine Fisheries Service (NMFS) on Auke Creek. Weirs operated throughout the durations of the coho run included Hugh Smith Lake, Klawock River, Salmon Bay Lake, Little Tatsamenie Lake, Hackett River, Auke Creek, Salmon Lake, Ford Arm Lake, Chilkat Lake and Chilkoot Lake. Counts from the other weirs were less than the actual escapements because operations were curtailed prior to the end of the run. At the Snettisham weir there was no daily count and fish were only counted when they were removed from the holding area for spawning purposes.

Escapement counts for age-0 fish, or *jacks*, were reported separately from those for age-1 fish, or *non-jacks*. Fish  $\leq 450$  mm total length were classified as *jacks* (A. Schmidt, Alaska Department of Fish and Game, Sport Fish, Sitka, personnel communication).

Due to the prohibitive cost of escapement sampling, the data collected represent a basic overview of certain types of systems, i.e., lake vs. stream/river. The scarcity of escapement data is also due to the poor weather that normally occurs when the coho enter the majority of the systems in Southeast Alaska.

### *Age, Sex, and Length*

Troll, seine, and gillnet catches of coho salmon were sampled at the ports of Ketchikan, Craig, Klawock, Wrangell, Petersburg, Port Alexander, Sitka, Pelican, Juneau, Hoonah, Excursion Inlet, and Yakutat. Sampling was also conducted at several smaller buying stations, aboard tenders and aboard troll vessels participating in the chinook salmon mortality assessment program (Davis et al. 1986; Seibel et al. 1988). Fish landed from individual boats and tenders for both the net and troll fisheries were sampled.

Three scales were obtained from the preferred area (INPFC 1963) on the left side of each fish, mounted on gum cards, and impressions made in cellulose acetate cards (Clutter and Whitesel 1956). Age was determined by visual examination of scale impressions under 40 to 75X magnification. Ages were reported in European notation, Koo (1962).

The *average freshwater ages* presented in this report were determined by multiplying the number of fish sampled by freshwater age, totaling that number for all age classes, and then dividing that total by the total number of fish sampled. For example, if there were 25 age-1., 30 age-2., and 40 age-3., the total freshwater age would be 205; this number divided by the number sampled 95 gives an average freshwater age of 2.16. This index shows the variations in the freshwater age class contributions from fishery to fishery in the commercial harvests and from system to system in the escapements that are being sampled each year.

Lengths were measured from mid-eye to fork-of-tail to the nearest half-centimeter from a minimum of 10% of the fish sampled for scales. Sex was determined by examination of external dimorphic maturation characteristics. The accuracy of our sex determinations was untested. The absence of obvious secondary sexual characteristics in silver bright, i.e., pre-spawning fish, precluded sex determinations of troll-caught coho that were dressed prior to delivery.

Difficulties were encountered in representatively sampling the commercial troll catch because sampling occurred at processing facilities where fish were usually sorted by size: *smalls* =  $\leq 7$ lb, *mediums* = 7 to 10lb, and *larges* =  $\geq 10$ lb; and by quality, two grades into different bins. To avoid biases when the entire delivery could not be sampled, fish were taken and sampled from each size and grading bin in proportion to abundance or a predetermined frequency for that particular bin. Similar difficulties were experienced in sampling seine and gillnet landings. Furthermore, throughout the season the cold storages changed the weight and quality categories to match market demands.

### *Analysis Strata*

Several factors contributed to in the development of sampling strata for age, sex and length data: (1) the logistic and cost considerations and tradeoffs required to obtain samples over such a broad geographic region; (2) the need to separate principal gear types, i.e., troll, seine, drift gillnet, and sport, and examine each data for temporal trends; and (3) the need to maintain for each strata a 10% chance that the estimate of the age proportions were within  $\pm 5\%$  of the true proportions. The equations from Cochran (1977), Thompson (1987), and Angers (1989) were corrected for finite population size (Appendix A.2). We assumed the presence of three age classes to compute the desired sample size for each time/area strata.

### **Troll**

In the troll fishery only one district can be reported on a fish ticket for each landing, but trollers often fish more than one district between landings. For example, a popular troll fishing area is Cross Sound, and boats fishing in this area may actually fish in Districts 113, 114, and 116. Although catch data were reported by district, we suggest cautious use of this data because of the cross-district reporting problem. Based upon skipper interviews conducted for coded wire tag recovery and fishery performance, there were four areas identified for Southeast Alaska in which only minor cross-area reporting occurs. Catches were

aggregated into these four areas (Figure 1): (1) Northwest, composed of Districts 113, 114, 116, 154, 156, 157, 181, 183, 186, 189 and 191; (2) Southwest, Districts 103, 104, 150, and 152; (3) Northeast, Districts 109, 110, 111, 112, and 115; and (4) Southeast, Districts 101, 102, 105, 106, 107, and 108. Catches by hand and power troll gear were combined for analysis of age, sex, and size data.

Age composition of coho salmon catches in each area were estimated using the sample age proportions. Whenever sample sizes permitted, the data were stratified over time into sampling periods by area. Because the age composition of coho catches can change throughout the migratory season, the grouping of samples into periods was a compromise between obtaining the number of samples necessary for a reasonably precise age composition and reducing the bias inherent in grouping the sample periods. Standard error of the percent of fish caught that were sampled by period for each age class was calculated by standard binomial formulae (Van Alen et al. 1987). The age composition and associated standard error of the total commercial catch by area were calculated by weighting the estimated sample age distribution and its standard error for each sampling period by the total commercial catch reported during that same sample period. Mean length and its standard error from the sampled coho salmon were calculated for each area, period, and age class. Average weights were determined by dividing the total reported poundage landed by the total reported catch for each district and gear group.

#### **Seine, Drift Gillnet, Trap, and Canadian Inriver Gillnet**

Sampling of coho harvested by seine and drift gillnet gear was intended to accurately describe the age composition of the season's catch by gear type and district. Weekly samples were generally obtained from each open district. However, small sample sizes, particularly for seine and drift gillnet fisheries, resulted in age composition estimates with precision less than desired. In most districts the seine and drift gillnet fleets harvest coho salmon incidentally to other salmon species; hence, individual vessel landings and season total catches were low. The low abundance of coho salmon in the catches, and the tendency for vessel owners to market them separately, made it difficult to access the catch for sampling. The principal reason for small sample size, however, was due to budget constraints which effected sampling effort. Nonetheless, catch data for these net fisheries by district and statistical week was considered reasonably accurate. Some deliveries included catches from more than one district and week. In 1987 there were no purse seine openings longer than 2 d in the Southeast Region, which made it difficult to sample coho salmon because most were sold separately from pink salmon *O. gorbuscha* (Walbaum). The lack of fish increased the speed at which seine caught fish were processed at the cold storages, and this further increased the sampling difficulty.

#### **Escapement**

The high cost of placing staff on the widely scattered and numerous coho spawning grounds limited the precise characterization of the biological data for most of the 2,000+ coho spawning systems in the Southeast Region. Sample sizes were often too small to accurately characterize the age, sex, or length composition of each escapement.

## RESULTS

### *Fishery Overview*

Coho salmon were commercially harvested by troll fishermen in all districts; by seine fishermen in Districts 101 to 105, and 109 to 114; by drift gillnet fishermen in Districts 101, 106, 108, 111, and 115; and trap fishermen in District 101-28. Coho salmon were also taken in the inriver gillnet fisheries on the Taku and Stikine Rivers in the waters bounded by Canada.

The 1987 harvest of nearly 1.5 million coho salmon was a dramatic drop from the 1986 record harvest of 3.3 million fish and less than the 1980-86 average of 1.9 million. The seine fisheries harvested 9% of the total coho salmon harvest in the region, 13% less than the historical 1960-86 average of 22%. This was due to the small runs of late run pink salmon in both the northern and southern districts in the Southeast Region. The drift gillnet fisheries harvested 12% of the total coho salmon harvest and was within 1% of the historical 1960-86 average harvest of 13%. The Southeast Alaska hatcheries provided 0.18 million to the total coho salmon harvest (ADF&G 1988).

The troll fishery was open to the harvest of coho salmon from 20 June through 20 September except for a 10-day regionwide closure from 3 August to 12 August an area closure on 29 August for coho salmon in the Yakutat area in state waters, and the continuation of a troll closure in the northern portion of District 112 and District 115 with the "8-day-on-and-6-day-off" fishing pattern. In addition, selected near-shore and offshore areas in the Northwest area were closed to protect chinook salmon *O. tshawytscha* during 13 July to 20 September, trollers then changed gear and targeted almost exclusively on coho salmon.

### *Numbers Harvested and Landed Weight*

A total of 1,450,815 coho salmon were harvested in commercial, terminal harvest area, hatchery cost recovery, sport, and subsistence fisheries in 1987 (Table 1). The majority (92.8%) were harvested in the ocean by commercial gear followed by ocean sport harvests (3.4%) and hatchery cost recovery harvests (2.8%). Smaller catches of <0.1% were reported by the Canadian inriver gillnet fisheries on the Stikine and Taku Rivers, by domestic subsistence fisheries, and in the commercial test fisheries. Troll fishers harvested 74.3% of the fish caught by U.S. commercial fishers, and smaller catches were made by seiners (8.3%), drift gillnetters (11.2%), and Annette Island Indian Reserve fisheries (2.1%, Table 2). Commercial harvests totaled 4.3 million kgs, (9.5 million lbs; Table 3). The average weight of all coho salmon commercially caught was 3.4 kg (6.8 lb), ranging from 3.3 kg (5.0 lb) for trap, 2.9 kg (6.4 lb) for

troll, 3.0 kg (6.5 lb) for seine, and 3.8 kg, (8.3 lb) for drift gillnet gear (Table 4). The average weight in 1987 was less than in all years from 1983 to 1986 (non statistical comparison, NSC). The average weight in the hatchery access harvests for the season was larger than in the common property fisheries.

## **Troll**

The troll fishery harvested 1,041,140 coho salmon, of which 25.4%, or 264,384 fish was from District 113 (Table 5). The second highest catch of 239,038 came from District 104 and the third highest of 89,497 from District 109. Peak catches were in the seventh week (26 July to 01 August) for District 104, and in the tenth week (16 to 22 August) for Districts 109 and 113. The overall peak troll catches were in the week of 26 July to 01 August, the seventh week of the fishery. Outside Districts 104, 113, 116, 150, 152, 154, 156, 157, 181, 189, and 191 accounted for 78.8% of the total catch, higher than the outside harvest of 69.3% in 1985 and 75.5% in 1986.

The first 9 weeks of the fishery accounted for 65.5% of the total troll catch. Catches declined during the week preceding the announced troll closure, possibly as a result of the mid-week closure which limited fishing effort (Table 5; Figures 2, 3). The 1987 conservation closure the second earliest since 1982 (Figure 4). For the last 2 years ADF&G has established the same starting date for the troll fishery, but during the 5 years prior to 1985 starting dates ranged from 15 June to 1 July (Figure 4). The 1987 catch was 34,000 fish larger than the 1976-86 average (Figure 5). The average weight of coho salmon increased almost 1.4 kg (3.1 lb) during the troll season (Tables 6, 7).

## **Seine**

The purse seine catch totalled 111,699 fish (Table 8), of which 48,992 were taken in District 104 and 16,386 in District 102. Catches were highest in District 114 in early July; Districts 110 and 111 in mid July; Districts 110, and 113, in late July; Districts 102, 104, and 109 in early August; District 101 in mid August; and District 103 in late August. Seine catches peaked between August 2 and 8. The 1987 purse seine catch of coho salmon decreased from the 1976-85 average by 146,000 fish (Figure 5). This was due in part to the weak runs of pink salmon in the region. Approximately 332,000 kg (731,000 lb) of coho salmon were harvested (Table 9) at an average weight of 3.0 kg (6.5 lb) per fish (Table 10). The harvest of hatchery coho salmon accounted for 10,595 fish of the commercial purse seine catch (Table 11). The total weight for the fishery was 36,227 kg (79,865 lb) with an overall average weight of 3.4 kg (7.5 lb), (Tables 12, 13).

## **Drift Gillnet**

The drift gillnet catch was 161,007 fish (Table 14). Districts 101 and 115 accounted for 56.1% of the harvest, and District 106 21.4%. On average, the catches peaked in early September: District 106 peaked in early August, District 111 in late August, Districts 108 and 115 in mid-September, and District 101 in

late September. There was a total of 606,000 kg (1.3 million lb) harvested in the drift gillnet fishery (Table 15). The average weight of coho salmon caught by drift gillnet gear increased approximately 2.1 kg (4.6 lb) during the season (Table 16). The fishing of nets with larger mesh sizes late in the season, i.e., fall gear, probably decreased the interception of smaller fish, making the evaluation of average weight from this fishery difficult. The 1987 drift gillnet catch was slightly smaller, 632 fish, than the 1976-85 average annual harvest (Figure 5). The hatchery harvest of coho salmon accounted for 1,473 fish of the commercial drift gillnet catch (Table 17). The total weight for the fishery was 6,579 kg (14,504 lb); the overall average weight was 4.5 kg (9.8 lb; Tables 18, 19).

### **Annette Island Indian Fishery**

**Trap.** The four fish traps operating in the Annette Island Indian Fishery Reserve caught 734 fish (Table 20). Catches were highest in the second and third weeks of the fishery. The 1987 catch was the smallest since 1975. There was a total of 1,700 kg (3,666 lb) harvested in the trap fishery. Fish averaged 2.3 kg (5.0 lb), and their size did not increase from the beginning of the season.

**Purse Seine.** This is the first year that the harvest data from the purse seine fishery is presented. The harvest of 9,204 coho salmon (Table 21) came primarily from District 101-28 on the southeast side of Annette Island. There was a total of 41,000 kg (91,000 lb) taken in this fishery. Fish averaged 4.5 kg (9.9 lb), increasing by 1.9 kg (4.1 lb) during the season.

**Drift gillnet.** This is the first time that the harvest data from the drift gillnet fishery is presented. The harvest of 18,952 coho salmon (Table 22) came primarily from District 101-28. There was a total of 58,000 kg (127,000 lb) taken in this fishery (Table 23). The average weight was 3.0 kg (6.7 lb) which increased 2.2 kg (4.9 lb) during the season (Table 24).

### **Private Hatchery Terminal Cost Recovery**

A total of 42,171 coho salmon were harvested in special harvest areas to meet private hatchery cost recovery needs. These included 1,184 fish from Nakat Inlet, 35,790 fish from Neets Bay, 3,390 fish from Earl West Cove, 28 fish from Hidden Falls, and 1,779 fish from Tamgas Harbor (Tables 25, 26).

### **Test Fishery**

The test fisheries in the region accounted for 1,976 coho salmon in both the ADF&G-sponsored fishery (1,932 fish, Tables 27, 28, 29) and the Annette Island Indian Reserve test fishery (44 fish; Table 30).

## **Sport Fishery**

Sport fishers harvested 51,892 coho salmon from marine waters in 1987. Most were harvested in the Juneau area (19,485 fish or 38.8%) and Ketchikan area (13,435 fish or 26.7%; see Mills 1988).

## **Subsistence Fishery**

The reported subsistence coho catch was 107 fish (Table 31). The reported catches by system were less than the actual catch because some permits were not returned.

## **Canadian Inriver Gillnet Fishery**

The Canadian commercial inriver gillnet fisheries harvested 5,278 fish from the Stikine River and 5,599 fish from the Taku River (Table 32). Catches peaked on the Taku River in the first week of September (30 August-05 September) and on the Stikine River in the second week of September (06-12 September). When the fisheries were closed in the fourth week of September the daily catch per boat was starting to decrease on the Stikine River but was still increasing on the Taku River.

### ***Age, Sex, Length and Historical Comparison***

Age and length statistics are presented by area and period for the troll fishery, by district for the seine and drift gillnet fisheries, and by river for the Canadian transboundary river fisheries. Terminal hatchery cost recovery, trap, sport, and subsistence catches were not sampled. The age composition data was compared for selected Southeast Alaska fisheries in 1987 with data from previous years (Gray et al. 1981; McGregor and Van Alen 1981; Mesiar 1984; Van Alen and Wood 1986; Wood and Van Alen 1987a, 1987b, 1989). Sexes are presented for all fish sampled from escapements and partially for seine and drift gillnet catches (Wood 1990) and not presented for troll-caught fish.

## **Troll**

Fish aged 1.1 and 2.1 dominated the troll catches in all areas (Table 33; Figure 8): age-2.1 fish composed about 49% and age-1.1 fish 37% of the harvest. Fish aged 3.1 and 4.1 made up a greater portion of the troll harvest in the Southeast region than from 1982 to 1986. The proportion of each age class contributed increased for all ages except age-1.1. The overall decrease in age-1.1 fish for the year, -17.7%, was very dramatic compared to the historical average. The largest decrease for age-1.1 fish, 23.1% was in the Northeast. The age-1.1 decline was distributed throughout the region: 19.5% in the Southeast, 18.4% in the Southwest, 17.7% in the Northwest areas.

This regionwide trend may have been caused by shifts in weather patterns or a decrease in the return of hatchery age-1.1 fish, which could have been affected by poor ocean rearing conditions. However, the

trend was also evident in the Lynn Canal and Taku/Snettisham drift gillnet fisheries which received a very small contribution of hatchery fish. Coho harvested from 1969 to 1970 tended to smolt at an older age than those harvested from 1982 to 1986 (Table 34). In 1987 there was a substantial increase (NSC) compared to 1986 in fish aged 3.1 and 4.1 in the northern areas (15.5%) and in the southern areas (17.5%).

Inseason growth of fish was evident in all areas as in past years (Table 35; Figure 9). The overall average length-by-age groups in the northern areas declined compared to the mean average length for the years 1983 to 1986. Only age-4.1 fish showed an increase in the northern areas, but this could be due to the low number of fish sampled for length this year or in past years. Compared with the historical average, fish increased in average size in the Southwest area but declined in the Southeast area .

The average weight of coho salmon in 1987 was the smallest since sampling began for this study (Figure 10). The mean average weight for the troll fishery for the years 1983 to 1986 was 3.3 kg (7.3 lb); the 1987 average weight was 2.9 kg (6.4 lb), showing a 0.4 kg (0.9 lb) decline from the mean average weight.

## Seine

Fish aged 1.1 and 2.1 also dominated seine fishery catches, (Table 36; Figure 11). In southern area Districts 101 to 104, 55.5% were age-2.1 and 34.1% age-1.1. In northern area District 113 and 114, 48.9% were age-2.1 and 36.6% age-1.1. Fish aged 3.1 and 4.1 represented 6.1% of the total catch in the southern districts and 8.5% of the total catch in the northern district. In southern area Districts 101-103, the proportion of age-1.1 fish, 23.3%, showed a dramatic drop from the 1983-1986 average of 52.3%. In District 101 there was a drop of 26.4% in the age-1.1 class. In District 104 the age-1.1 contribution, 48.5%, shows a slight decline from the 1986 proportion but an overall increase of 8.4% from the mean age percentage of 40.1% from 1983 to 1986. Ages-2.1, 3.1, and 4.1 fish showed an increase in the overall population indicating a trend of older fish entering into the fishery. Age-2.1 fish showed the largest change in Districts 101-103, increasing 20.4% over the mean age percentage.

In District 103, age-3.1 and age-4.1 fish had a significant change over the mean age percentage: Age-3.1 increased 8.7% and age-4.1 appearing for the first time, composed 1.4% of the fishery. Districts 104 and 113 were the only districts that had more age-1.1 fish than any other age class. The estimated Alaska hatchery contribution was 5.3% to District 104 and 6.6% to District 113. District 104 hatchery contribution was down from the 8.8% in 1986; this may be explained by the large contribution of fish from southern Southeast Alaska and northern British Columbia. In District 113 the majority of the coho in the later season were taken in the Salisbury Sound and Kalinin Bay area where coho were returning to the NSRAA lake stocking program in Lake Surprise; this could account for the elevated numbers in the age-1.1 composition for the fishery.

Compared with the 1983-86 mean age percentage, there was an increase in the proportion of age-3.1 and age-4.1 of 3.4% in the southern districts and 2.5% in the northern districts (Figure 11). This shift may be attributed to the colder rearing conditions for the age-3. and -4. fish. Fish aged 1.1 tended to have the

smallest average length (Table 37; Figure 12). The overall average length compared to the mean average 1983-86 length shows that the fish tended to be smaller except for Districts 102 and 112. This may be a result of the inside fishery occurring later in the season and harvesting older and larger fish. The average weight of 2.9 kg (6.5lb) for the seine fishery decreased by 0.5 kg (0.9 lb) from the 1983-86 mean average weight of 3.4 kg (7.4 lb; Figure 10).

### **Drift Gillnet**

Fish aged 2.1 and 1.1 were the dominant age classes in the drift gillnet fishery and represented at least 81.3% of the catches in all districts (Table 38; Figure 13). Fish aged 3.1 and 4.1 represented at least 7.8% of the total catch for all districts. From 1983 through 1987 age-3.1 fish composed 0.6%, 1.0%, 3.3%, 4.7%, and 11.7% of the harvest, respectively. There were no age-4.1 fish sampled in 1983 and 1984. The harvest of

age-4.1 fish was 0.4% in 1985, 1.2% in 1986, and 1.0% in 1987 (Figure 13). Compared to 1983-86, in 1987 fish aged 1.1 made up a smaller proportion of the catch in all of the districts except District 108. In the 1987 drift gillnet fishery the dominant age class changed from age-1.1 to age-2.1. Age-2.1 composed at least 60.5% of the total drift gillnet harvest of coho salmon. Compared to 1983-86 catches, the fish in 1987 were older in all districts measured against the mean age percentage of the individual districts. Fish aged 2.1 and 3.1 were usually longer than fish aged 1.1 (Table 39; Figure 14). The mean average length for the fishery shows a very slight decrease in the average length from the 1983 to 1986 data. The average weight of 3.8 kg (8.3 lb) decreased from the 1983-86 mean of 4.0 kg (8.9 lb) by 0.2 kg (0.6 lb; Figure 10).

### **Canadian Inriver Gillnet**

Coho harvested in the Canadian fishery on the Taku River showed a dramatic shift to older aged fish as compared to the 1986 age composition (Table 40; Figure 15). In the 1987 harvest, age-1.1 fish composed 28.7%, the smallest proportion; age-2.1 composed the highest proportion (68.7%) since 1984. Age-3.1 fish occurred in the second highest proportion since 1985 (NSC; Figure 15). The change in the age composition showed that the fishery had more older fish, except for age-3.1, than in any other year in the 1983-86 average. The length for these age groups showed a decline (Table 40). Data for age-2.1 fish show the largest decline in length: 41mm from the 1983-86 mean average (Figure 16).

### ***Escapement Statistics***

Selected Southeast Alaska coho escapements were surveyed to obtain estimates of abundance, timing, and age, sex, and length composition. Taylor (1989) provided escapement counts for the Auke Creek weir.

## Numbers of Fish

Peak escapement counts and weir counts for the 82 systems surveyed are shown in Table 41; escapements of >500 fish occurred in 24 of these systems. The largest wild stock escapement count was 3,260 fish in the Berners River. The largest hatchery count was 11,281 from the Klawock River Hatchery. This river has an indigenous population of wild coho salmon that intermingle with the hatchery stock at the weir, and the count contains a mixture of both populations.

The seven weir counts averaged 1,086 fish. The 1987 escapements for Auke Lake, Berners River, Salmon Lake, and Hugh Smith Lake, all of which have been monitored by weirs in recent years, averaged 1,435 fish compared to the 1974-86 average of 2,178 fish (Table 42).

The mean date of migration for coho salmon returning to the weired systems was usually late September but for non-jacks ranged from 07 September in Auke Lake to 7 October in Chilkoot Lake (Table 43). Jacks migrated 5 d earlier on average than non-jacks. There was little difference in the mean date of migration among inside coastal systems and outside coastal systems: 80% of all escapements passed through most weirs over a 1- to 2-month period. The weirs in place for coho escapement did not span the entire time of migration, only the major portions of the runs.

## Age, Sex, and Length

Age, sex, and length information was obtained from the escapements to 14 wild and 3 hatchery runs (Tables 44, 45). Fish aged 1.1 and 2.1 dominated the escapements in most systems; however, age-3.1 fish exceeded 20% of the sample at Hugh Smith Lake, Naha River, Salmon Bay Lake, Auke Lake, Salmon Lake, Redoubt Lake, and Ford Arm Lake. There was a higher proportion of older fish and jacks in the escapements than in the harvests.

All coho salmon returning to Southeast hatcheries in 1987 were age 0. and age 1. at time of release. Because few returning adults were age 2. and age 3., these fish either were (1) held in fresh water for an additional winter or winters, (2) wild stock fish in the samples, or (3) not accurately aged. The most probable reason is that wild stock coho strayed into the hatchery area; also, they could have been returning to their native stream where a hatchery weir had been placed.

Age compositions varied among systems and years (Table 46; Figure 17). Coho in the sampled escapements have tended to smolt at an older age (NSC) in the last few years. The changes in age composition do not appear to be related to geographical differences. In 1987 approximately 50% of the smolts sampled from Salmon Lake were aged 3.0 (Table 47; Figure 18) as compared to the 1985-86 average of 37.9% for Salmon Lake. The 1986 smolt ages from Salmon Lake showed that age-3.0 fish were the dominant outmigrating age class, but the dominant returning adult age class from the 1986 outmigration was age 2.1. This could have been caused (1) by the extremely low sampling rate on returning adults 167 fish, (2) because age-2 smolts survived better in the marine environment, or (3) because older and larger smolts are more likely to return as jacks. The final problem in sampling is that

jacks are able to pass through the pickets unsampled, and consequently counts do not reflect the true age composition for the system (Table 46).

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Table 1. Harvest of coho salmon in Southeast Alaska, 1987.

Fishery	Numbers	Percent
Commercial Fishery Harvest		
Hand Troll	183,222	12.5
Power Troll	857,918	58.7
Total Troll	1,041,140	71.2
Purse Seine	111,699	7.6
THA <sup>1</sup> - Purse Seine	10,595	0.7
Drift Gillnet	162,480	11.1
THA - Drift Gillnet	1,473	0.1
Total Troll, Seine and Gillnet	1,327,387	90.8
Annette Island Indian Reserve Harvest		
Trap	734	0.1
Purse Seine	9,204	0.6
Drift Gillnet	18,952	1.3
Hatchery Cost Recovery	1,779	0.1
Test	44	<0.1
Total Annette Island	30,713	2.1
Other Commercial Harvests		
SHA <sup>2</sup> - Hatchery Cost Recovery	40,392	2.8
Test Fishery	1,932	0.1
Total Other Commercial	42,324	2.9
Sport	50,284	3.4
Subsistence	107	<0.1
Subtotal: Total Alaskan Harvest	1,450,815	99.2
Canadian Transboundry River Harvests		
Taku Commercial Inriver Gillnet	5,599	0.4
Sitkine Commercial Inriver Gillnet	5,728	0.4
Subtotal: Total Canadian Harvest	11,327	0.8
Total Harvest	1,462,142	100.0

<sup>1</sup> Terminal Harvest Area or THA is the area adjacent to a state or private hatchery where commercial fishers may harvest segregated hatchery returns.

<sup>2</sup> Special Harvest Area or SHA is an area where private hatchery returns segregate from wild stocks and the private hatchery operator may harvest returns for cost recovery.

Table 2. Commercial harvest in numbers of coho salmon in Southeast Alaska by gear type and district, 1987.

Catch by Fishery (numbers)												
District	Troll	Purse Seine	Purse Seine THA	Drift Gillnet	Drift Gillnet THA	Annette Island Indian Reserve				SHA	Test	Total
						Trap	Purse Seine	Drift Gillnet	Hatchery			
101	39,495	6,341	1,591	38,117	1,473	734	9,204	18,952	1,779	36,974	85	154,745
102	22,797	16,386									79	39,262
103	56,462	12,909	7,340								33	76,744
104	239,038	48,992									263	288,293
105	16,623	203									9	16,835
106	6,669			34,534							853	42,056
107	1,740									3,390		5,130
108	61			1,015							11	1,087
109	89,497	4,178									94	93,769
110	776	3,098									5	3,879
111	143	164		35,179							544	36,030
112	12,270	9,403	1,664							28		23,365
113	264,384	7,784										272,168
114	80,545	2,241										82,786
115	480			53,635								54,115
116	68,136											68,136
150	6,164											6,164
152	25,771											25,771
154	15,116											15,116
156	9,574											9,574
157	1,520											1,520
181	49,288											49,288
183	3,430											3,430
186	622											
189	27,424											27,424
191	3,115											3,115
Total	1,041,140	111,699	10,595	162,480	1,473	734	9,204	18,952	1,779	40,392	1,976	1,400,424
Percent	74.3	8.0	0.8	11.6	0.1	0.1	0.7	1.4	0.1	2.9	0.1	100.0

<sup>1</sup> Terminal Harvest Area or THA is the area adjacent to a state or private hatchery where commercial fishers may harvest segregated hatchery returns.

<sup>2</sup> Special Harvest Area or SHA is an area where private hatchery returns segregate from wild stocks and the private hatchery operator may harvest returns for cost recovery.

Table 3. Commercial harvest in weight of coho salmon in Southeast Alaska by gear type and district, 1987.

Weight of Fish (lb)												
District	Troll	Purse Seine	Purse Seine THA	Drift Gillnet	Drift Gillnet THA	Annette Island Indian Reserve				SHA	Test	Total
						Trap	Purse Seine	Drift Gillnet	Hatchery			
101	237,434	35,662	14,500	304,930	14,504	3,666	90,986	126,956	18,355	360,949	694	1,208,636
102	136,875	112,360									664	249,899
103	339,188	91,526	54,210								249	485,173
104	1,453,027	310,040									2,345	1,765,412
105	105,175	1,627									66	106,868
106	46,608			243,880							6,597	297,085
107	11,441									35,953		47,394
108	408			10,034							67	10,509
109	590,392	28,717									640	619,749
110	5,120	21,200									33	26,353
111	940	1,086		314,065							5,690	321,781
112	82,924	61,360	11,146							127		155,557
113	1,734,358	50,978										1,785,336
114	545,091	16,010										561,101
115	3,669			478,874								482,543
116	462,562											462,562
150	39,274											39,274
152	170,835											170,835
154	98,607											98,607
156	64,330											64,330
157	7,734											7,734
181	343,248											343,248
183	21,009											21,009
186	4,182											4,182
189	179,653											179,653
191	21,733											21,733
Total	6,705,817	730,566	79,856	1,351,783	14,504	3,666	90,986	126,956	18,355	397,029	17,045	9,536,563

<sup>1</sup> Terminal Harvest Area or THA is the area adjacent to a state or private hatchery where commercial fishers may harvest segregated hatchery returns.

<sup>2</sup> Special Harvest Area or SHA is an area where private hatchery returns segregate from wild stocks and the private hatchery operator may harvest returns for cost recovery.

Table 4. Average weight of the commercial harvest of coho salmon in Southeast Alaska by gear type and district, 1987.

Average Weight of Fish (lb)												
District	Troll	Purse Seine	Purse Seine THA	Drift Gillnet	Drift Gillnet THA	Annette Island Indian Reserve				SHA	Test	Total
						Trap	Purse Seine	Drift Gillnet	Hatchery			
101	6.0	5.6	9.1	8.0	9.8	5.0	9.9	6.7	10.3	9.8	8.2	7.8
102	6.0	6.9									8.4	6.4
103	6.0	7.1	7.4								7.5	6.3
104	6.1	6.3									8.9	6.1
105	6.3	8.0									7.3	6.3
106	7.0			7.1							7.7	7.1
107	6.6									10.6		9.2
108	6.7			9.9							6.1	9.7
109	6.6	6.9									6.8	6.6
110	6.6	6.8									6.6	6.8
111	6.6	6.6		8.9							10.5	8.9
112	6.8	6.5	6.7							4.5		6.7
113	6.6	6.5										6.6
114	6.8	7.1										6.8
115	7.6			8.9								8.9
116	6.8											6.8
150	6.4											6.4
152	6.6											6.6
154	6.5											6.5
156	6.7											6.7
157	5.1											5.1
181	7.0											7.0
183	6.1											6.1
186	6.7											6.7
189	6.6											6.6
191	7.0											7.0
Total - lb	6.4	6.5	7.5	8.3	9.8	5.0	9.9	6.7	10.3	9.8	8.6	6.8
- kg	2.9	3.0	3.4	3.8	4.5	2.3	4.5	3.0	4.7	4.5	3.9	3.1

<sup>1</sup> Terminal Harvest Area or THA is the area adjacent to a state or private hatchery where commercial fishers may harvest segregated hatchery returns.

<sup>2</sup> Special Harvest Area or SHA is an area where private hatchery returns segregate from wild stocks and the private hatchery operator may harvest returns for cost recovery.

Table 5. Troll harvest in numbers of coho salmon in Southeast Alaska by district and statistical week, 1987.

Catch by District (numbers)															
Week	Date	101	102	103	104	105	106	107	108	109	110	111	112	113	114
25	20-Jun /20-Jun			45	2,120	35	2	2		26	2			688	44
26	21-Jun /27-Jun	257	240	515	12,869	588	58	20	3	898	43	4	28	9,585	1,625
27	28-Jun /04-Jul	367	610	2,254	11,169	1,385	62	17		2,072	95	3	162	16,787	1,684
28	05-Jul /11-Jul	3,961	2,039	3,349	24,293	633	86	20		9,696	41	1	405	23,226	2,515
29	12-Jul /18-Jul	5,108	5,509	9,741	38,225	1,771	148	62		17,904	58	4	329	35,016	5,076
30	19-Jul /25-Jul	7,259	6,312	8,804	42,485	2,909	118	138		11,854	122	38	1,058	26,802	6,353
31	26-Jul /01-Aug	6,572	3,605	11,082	45,849	3,468	2,819	239		10,657	10		1,645	37,162	6,952
32	02-Aug /08-Aug	5,022	1,812	3,238	15,838	1,929	153	188		8,468	140		393	26,095	6,151
33	09-Aug /15-Aug	80	143	3,799	5,833	272	490	55		3,740	12		1,411	8,065	3,181
34	16-Aug /22-Aug	2,781	1,298	7,280	21,166	1,528	604	365	39	18,671	119	80	2,016	45,467	13,836
35	23-Aug /29-Aug	934	173	3,946	13,607	1,101	677	237	18	3,624	63		1,951	22,992	11,248
36	30-Aug /05-Sep	945	49	1,944	4,437	733	684	257		1,120	3		1,314	10,480	8,552
37	06-Sep /12-Sep	3,466	913	377	1,136	235	485	88		719	68	6	1,058	1,598	6,570
38	13-Sep /19-Sep	1,645	25	88		36	268	52	1	48		7	152	378	5,196
39	20-Sep /26-Sep	1,098	69		11		15						348	43	1,562
Total		39,495	22,797	56,462	239,038	16,623	6,669	1,740	61	89,497	776	143	12,270	264,384	80,545
Percent		3.8	2.2	5.4	23.0	1.6	0.6	0.2	0.0	8.6	0.1	0.0	1.2	25.4	7.7

Catch by District (numbers)														
Week	Date	115	116	150	152	154	156	157	181	183	186	189	191	Total
25	20-Jun /20-Jun		219					125						3,308
26	21-Jun /27-Jun	11	698				164	128	22	8		54		27,818
27	28-Jun /04-Jul		1,565		1,830	523	420	94	212	52	60	249		41,672
28	05-Jul /11-Jul		501			1,418	9	126	9	316		118		72,762
29	12-Jul /18-Jul		2,538			2,590	90	927	243	105	2	690	73	126,209
30	19-Jul /25-Jul		11,670		200	866	352	120	372	98		129		128,059
31	26-Jul /01-Aug		9,435	2,363	2,801	1,092	2,080		2,226	305		387		150,749
32	02-Aug /08-Aug		8,465	1,948	14,112	4,172	849		2,339	50		175		101,537
33	09-Aug /15-Aug		559	61	136	84			1,689	129				29,739
34	16-Aug /22-Aug		7,826	1,342	5,957	3,174	3,006		8,039	318		3,871		148,783
35	23-Aug /29-Aug	300	15,204		487	1,197	776		19,776	479	513	6,413	1,201	106,917
36	30-Aug /05-Sep	49	7,315	239			680		12,354	810	2	4,429	1,538	57,934
37	06-Sep /12-Sep	103	2,116	211	59		1,130		1,786	544	45	10,880	303	33,896
38	13-Sep /19-Sep		25		189		18		221	216		29		8,594
39	20-Sep /26-Sep	17												3,163
Total		480	68,136	6,164	25,771	15,116	9,574	1,520	49,288	3,430	622	27,424	3,115	1,041,140
Percent		0.0	6.5	0.6	2.5	1.5	0.9	0.1	4.7	0.3	0.1	2.6	0.3	100.0

Table 6. Troll harvest in weight of coho salmon in Southeast Alaska by district and statistical week, 1987.

Weight by District (lb)															
Week	Date	101	102	103	104	105	106	107	108	109	110	111	112	113	114
25	20-Jun /20-Jun			216	10,111	158	10	5		131	16			3,091	186
26	21-Jun /27-Jun	1,429	1,418	2,466	61,488	3,143	248	104	10	4,586	259	21	123	46,729	7,106
27	28-Jun /04-Jul	2,335	3,499	11,430	58,011	6,781	295	77		10,938	560	20	846	85,923	8,213
28	05-Jul /11-Jul	21,793	11,266	17,333	131,245	3,410	484	89		56,223	209	5	2,171	127,100	13,467
29	12-Jul /18-Jul	28,389	33,527	53,470	216,355	9,952	865	328		103,195	335	25	1,951	204,020	28,802
30	19-Jul /25-Jul	44,156	36,233	51,900	253,494	17,047	709	755		70,089	759	217	6,665	166,030	38,257
31	26-Jul /01-Aug	38,869	21,190	65,408	286,050	22,461	18,627	1,366		70,704	96		11,180	247,918	43,269
32	02-Aug /08-Aug	30,102	11,688	18,941	100,301	12,805	1,189	1,194		61,456	898		2,448	173,467	40,191
33	09-Aug /15-Aug	524	922	25,657	41,963	1,910	3,362	319		27,798	114		9,747	59,231	22,647
34	16-Aug /22-Aug	17,851	8,547	49,187	155,722	11,159	4,480	2,406	262	142,969	997	520	14,637	345,972	98,442
35	23-Aug /29-Aug	6,257	1,190	27,189	104,601	8,917	5,032	1,751	129	28,737	426		14,595	178,193	84,395
36	30-Aug /05-Sep	6,774	378	13,120	35,007	5,641	5,411	1,950		8,498	24		9,846	83,407	64,644
37	06-Sep /12-Sep	25,802	6,820	2,487	8,790	1,643	3,749	669		4,872	443	45	7,582	13,078	52,376
38	13-Sep /19-Sep	13,153	197	600		306	2,157	433	7	327		87	1,133	3,290	43,282
39	20-Sep /26-Sep	8,832	556		87		151						2,670	319	11,178
Total		237,434	136,875	339,188	1,453,027	105,175	46,608	11,441	408	590,392	5,120	940	82,924	1,734,358	545,091

Weight by District (lb)														
Week	Date	115	116	150	152	154	156	157	181	183	186	189	191	Total
25	20-Jun /20-Jun		1,036					615						16,052
26	21-Jun /27-Jun	55	3,739				866	621	106	37		283		134,800
27	28-Jun /04-Jul		7,836		12,959	2,608	1,848	522	1,030	250	415	1,673		217,404
28	05-Jul /11-Jul		2,885			7,894	67	706	59	1,495		708		397,114
29	12-Jul /18-Jul		15,443			14,696	430	5,178	1,312	613	9	3,691	379	722,343
30	19-Jul /25-Jul		70,861		1,250	5,372	1,912	707	2,194	547		763		769,370
31	26-Jul /01-Aug		59,172	14,653	17,903	6,749	13,228		15,586	1,979		2,360		956,789
32	02-Aug /08-Aug		54,628	11,867	90,925	27,170	5,246		13,770	342		1,049		659,335
33	09-Aug /15-Aug		4,051	429	975	657			10,966	819				210,801
34	16-Aug /22-Aug		57,319	8,904	41,291	24,494	21,416		54,974	2,220		27,071		1,088,620
35	23-Aug /29-Aug	2,486	113,123		3,909	8,967	5,734		139,503	3,100	3,358	43,980	8,031	787,145
36	30-Aug /05-Sep	359	56,409	1,790			5,350		88,170	5,606	22	30,812	11,294	428,884
37	06-Sep /12-Sep	769	16,902	1,631	489		8,093		13,852	4,001	378	67,033	2,029	239,154
38	13-Sep /19-Sep		194		1,134		140		1,726			230		68,396
39	20-Sep /26-Sep	154												23,860
Total		3,669	462,562	39,274	170,835	98,607	64,330	7,734	343,248	21,009	4,182	179,653	21,733	6,680,155

Table 7. Average weight in the troll harvest of coho salmon in Southeast Alaska by district and statistical week, 1987.

Average Weight by District (lb)															
Week	Date	101	102	103	104	105	106	107	108	109	110	111	112	113	114
25	20-Jun /20-Jun			4.8	4.8	4.5	5.0	2.5		5.0	8.0			4.5	4.2
26	21-Jun /27-Jun	5.6	5.9	4.8	4.8	5.3	4.3	5.2	3.3	5.1	6.0	5.3	4.4	4.9	4.4
27	28-Jun /04-Jul	6.4	5.7	5.1	5.2	4.9	4.8	4.5		5.3	5.9	6.7	5.2	5.1	4.9
28	05-Jul /11-Jul	5.5	5.5	5.2	5.4	5.4	5.6	4.5		5.8	5.1	5.0	5.4	5.5	5.4
29	12-Jul /18-Jul	5.6	6.1	5.5	5.7	5.6	5.8	5.3		5.8	5.8	6.3	5.9	5.8	5.7
30	19-Jul /25-Jul	6.1	5.7	5.9	6.0	5.9	6.0	5.5		5.9	6.2	5.7	6.3	6.2	6.0
31	26-Jul /01-Aug	5.9	5.9	5.9	6.2	6.5	6.6	5.7		6.6	9.6		6.8	6.7	6.2
32	02-Aug /08-Aug	6.0	6.5	5.8	6.3	6.6	7.8	6.4		7.3	6.4		6.2	6.6	6.5
33	09-Aug /15-Aug	6.6	6.4	6.8	7.2	7.0	6.9	5.8		7.4	9.5		6.9	7.3	7.1
34	16-Aug /22-Aug	6.4	6.6	6.8	7.4	7.3	7.4	6.6	6.7	7.7	8.4	6.5	7.3	7.6	7.1
35	23-Aug /29-Aug	6.7	6.9	6.9	7.7	8.1	7.4	7.4	7.2	7.9	6.8		7.5	7.8	7.5
36	30-Aug /05-Sep	7.2	7.7	6.7	7.9	7.7	7.9	7.6		7.6	8.0		7.5	8.0	7.6
37	06-Sep /12-Sep	7.4	7.5	6.6	7.7	7.0	7.7	7.6		6.8	6.5	7.5	7.2	8.2	8.0
38	13-Sep /19-Sep	8.0	7.9	6.8		8.5	8.0	8.3	7.0	8.3		12.4	7.5	8.7	8.3
39	20-Sep /26-Sep	8.0	8.1		7.9		10.1						7.7	7.4	7.2
Total - lb		6.0	6.0	6.0	6.1	6.3	7.0	6.6	6.7	6.6	6.6	6.6	6.8	6.6	6.8
kg		2.7	2.7	2.7	2.8	2.9	3.2	3.0	3.0	3.0	3.0	3.0	3.1	3.0	3.1

Average Weight by District (lb)														
Week	Date	115	116	150	152	154	156	157	181	183	186	189	191	Total
25	20-Jun /20-Jun		4.7					4.9						4.9
26	21-Jun /27-Jun	5.0	5.4				5.3	4.9	4.8	4.6		5.2		4.8
27	28-Jun /04-Jul		5.0		7.1	5.0	4.4	5.6	4.9	4.8	6.9	6.7		5.2
28	05-Jul /11-Jul		5.8			5.6	7.4	5.6	6.6	4.7		6.0		5.5
29	12-Jul /18-Jul		6.1			5.7	4.8	5.6	5.4	5.8	4.5	5.3	5.2	5.7
30	19-Jul /25-Jul		6.1		6.3	6.2	5.4	5.9	5.9	5.6		5.9		6.0
31	26-Jul /01-Aug		6.3	6.2	6.4	6.2	6.4		7.0	6.5		6.1		6.3
32	02-Aug /08-Aug		6.5	6.1	6.4	6.5	6.2		5.9	6.8		6.0		6.5
33	09-Aug /15-Aug		7.2	7.0	7.2	7.8			6.5	6.3				7.1
34	16-Aug /22-Aug		7.3	6.6	6.9	7.7	7.1		6.8	7.0		7.0		7.3
35	23-Aug /29-Aug	8.3	7.4			7.5	7.4		7.1	6.5	6.5	6.9	6.7	7.4
36	30-Aug /05-Sep	7.3	7.7	7.5			7.9		7.1	6.9	11.0	7.0	7.3	7.4
37	06-Sep /12-Sep	7.5	8.0	7.7	8.3		7.2		7.8	7.4	8.4	6.2	6.7	7.1
38	13-Sep /19-Sep		7.8		6.0		7.8		7.8	0.0		7.9		8.0
39	20-Sep /26-Sep	9.1												7.5
Total - lb		7.6	6.8	6.4	6.6	6.5	6.7	5.1	7.0	6.1	6.7	6.6	7.0	6.4
- kg		3.5	3.1	2.9	3.0	3.0	3.0	2.3	3.2	2.8	3.0	3.0	3.2	2.9

Table 8. Purse seine harvest in numbers of coho salmon in Southeast Alaska by district and statistical week, 1987.

Catch by District (numbers)							
Week	Date	101	102	103	104	105	109
27	28-Jun - 04-Jul						
28	05-Jul - 11-Jul		69		3,171		
29	12-Jul - 18-Jul	432	64		10,878		
30	19-Jul - 25-Jul	1,658			6,975		
31	26-Jul - 01-Aug	895	2,068		4,524		1,182
32	02-Aug - 08-Aug	1,385	5,558		15,938		1,864
33	09-Aug - 15-Aug	1,971	1,024		3,833		377
34	16-Aug - 22-Aug			6,117	3,673		313
35	23-Aug - 29-Aug						
36	30-Aug - 05-Sep		2,931	4,032		203	442
37	06-Sep - 12-Sep		3,700	2,383			
38	13-Sep - 19-Sep		206	377			
39	20-Sep - 26-Sep		615				
40	27-Sep - 03-Oct		38				
41	04-Oct - 10-Oct		113				
Total		6,341	16,386	12,909	48,992	203	4,178
Percent		5.7	14.7	11.6	43.9	0.2	3.7

Catch by District (numbers)							
Week	Date	110	111	112	113	114	Total
27	28-Jun - 04-Jul			61		80	141
28	05-Jul - 11-Jul		2	233	39	1,013	4,527
29	12-Jul - 18-Jul	905	47	1,031	396		13,753
30	19-Jul - 25-Jul		115	2,309	578	51	11,686
31	26-Jul - 01-Aug	1,339		1,518	4,399	17	15,942
32	02-Aug - 08-Aug	733		2,265			27,743
33	09-Aug - 15-Aug	121		1,108	435		8,869
34	16-Aug - 22-Aug			878	131	276	11,388
35	23-Aug - 29-Aug						
36	30-Aug - 05-Sep				1,596		9,204
37	06-Sep - 12-Sep				180	300	6,563
38	13-Sep - 19-Sep					330	913
39	20-Sep - 26-Sep				30	174	819
40	27-Sep - 03-Oct						38
41	04-Oct - 10-Oct						113
Total		3,098	164	9,403	7,784	2,241	111,699
Percent		2.8	0.1	8.4	7.0	2.0	100.0

Table 9. Purse seine harvest in weight of coho salmon in Southeast Alaska by district and statistical week, 1987.

Weight by District (lb)							
Week	Date	101	102	103	104	105	109
27	28-Jun - 04-Jul						
28	05-Jul - 11-Jul				19,076		
29	12-Jul - 18-Jul	2,498			63,935		
30	19-Jul - 25-Jul	9,822			43,232		
31	26-Jul - 01-Aug	5,294	10,766		26,762		8,071
32	02-Aug - 08-Aug	5,698	36,538		104,020		12,676
33	09-Aug - 15-Aug	12,350	6,829		26,203		2,497
34	16-Aug - 22-Aug			42,070	26,812		2,250
35	23-Aug - 29-Aug						
36	30-Aug - 05-Sep		20,803	29,367		1,627	3,223
37	06-Sep - 12-Sep		29,110	17,363			
38	13-Sep - 19-Sep		1,517	2,726			
39	20-Sep - 26-Sep		5,392				
40	27-Sep - 03-Oct		366				
41	04-Oct - 10-Oct		1,039				
Total		35,662	112,360	91,526	310,040	1,627	28,717

Weight by District (lb)							
Week	Date	110	111	112	113	114	Total
27	28-Jun - 04-Jul			394		418	812
28	05-Jul - 11-Jul		14	1,424	226	6,277	27,017
29	12-Jul - 18-Jul	5,819	332	6,304	2,254		81,142
30	19-Jul - 25-Jul		740	14,543	3,650	366	72,353
31	26-Jul - 01-Aug	9,464		9,860	26,887	107	97,211
32	02-Aug - 08-Aug	5,087		14,903			178,922
33	09-Aug - 15-Aug	830		7,463	3,278		59,450
34	16-Aug - 22-Aug			6,469	1,011	1,900	80,512
35	23-Aug - 29-Aug						0
36	30-Aug - 05-Sep				12,027		67,047
37	06-Sep - 12-Sep				1,380	2,346	50,199
38	13-Sep - 19-Sep					2,869	7,112
39	20-Sep - 26-Sep				265	1,727	7,384
40	27-Sep - 03-Oct						366
41	04-Oct - 10-Oct						1,039
Total		21,200	1,086	61,360	50,978	16,010	730,566

Table 10. Average weight of the purse seine harvest of coho salmon in Southeast Alaska by district and statistical weeks, 1987.

Average Weight by District (lb)							
Week	Date	101	102	103	104	105	109
27	28-Jun - 05-Jul						
28	06-Jul - 12-Jul				6.0		
29	13-Jul - 19-Jul	5.8			5.9		
30	20-Jul - 26-Jul	5.9			6.2		
31	27-Jul - 02-Aug	5.9	5.2		5.9		6.8
32	03-Aug - 09-Aug	4.1	6.6		6.5		6.8
33	10-Aug - 16-Aug	6.3	6.7		6.8		6.6
34	17-Aug - 23-Aug			6.9	7.3		7.2
35	24-Aug - 30-Aug						
36	31-Aug - 06-Sep		7.1	7.3		8.0	7.3
37	07-Sep - 13-Sep			7.3			
38	14-Sep - 20-Sep		7.4	7.2			
39	21-Sep - 27-Sep		8.8				
40	28-Sep - 04-Oct		9.6				
41	05-Oct - 11-Oct		9.2				
Total - lb		5.6	6.9	7.1	6.3	8.0	6.9
- kg		2.5	3.1	3.2	2.9	3.6	3.1

Average Weight by District (lb)							
Week	Date	110	111	112	113	114	Total
27	28-Jun - 05-Jul			6.5			5.8
28	06-Jul - 12-Jul		7.0	6.1	5.8	6.2	6.0
29	13-Jul - 19-Jul	6.4	7.1	6.1	5.7		5.9
30	20-Jul - 26-Jul		6.4	6.3	6.3	7.2	6.2
31	27-Jul - 02-Aug	7.1		6.5	6.1	6.3	6.1
32	03-Aug - 09-Aug	6.9		6.6			6.4
33	10-Aug - 16-Aug	6.9		6.7	7.5		6.7
34	17-Aug - 23-Aug			7.4	7.7	6.9	7.1
35	24-Aug - 30-Aug						
36	31-Aug - 06-Sep				7.5		7.3
37	07-Sep - 13-Sep				7.7	7.8	7.6
38	14-Sep - 20-Sep					8.7	7.8
39	21-Sep - 27-Sep				8.8	9.9	9.0
40	28-Sep - 04-Oct						9.6
41	05-Oct - 11-Oct						9.2
Total - lb		6.8	6.6	6.5	6.5	7.1	6.5
- kg		3.1	3.0	3.0	3.0	3.2	3.0

Table 11. Purse seine THA<sup>1</sup> harvest in numbers of coho salmon in Southeast Alaska by hatchery and statistical weeks, 1987.

Catch by THA <sup>1</sup> (numbers)					
Week	Date	Neets Bay 101-95	Klawock 103-65	Hidden Falls 112-22	Total
27	28-Jun - 04-Jul			36	36
28	05-Jul - 11-Jul			118	118
29	12-Jul - 18-Jul			150	150
30	19-Jul - 25-Jul			957	957
31	26-Jul - 01-Aug				
32	02-Aug - 08-Aug			367	367
33	09-Aug - 15-Aug			1	1
34	16-Aug - 22-Aug			35	35
35	23-Aug - 29-Aug				
36	30-Aug - 05-Sep		2,427		2,427
37	06-Sep - 12-Sep		3,443		3,443
38	13-Sep - 19-Sep		982		982
39	20-Sep - 26-Sep	1,207	488		1,695
40	27-Sep - 03-Oct	384			384
Total		1,591	7,340	1,664	10,595
Percent		15.0	69.3	15.7	100.0

<sup>1</sup> Terminal Harvest Area or THA is the area adjacent to a state or private hatchery where commercial fishers may harvest segregated hatchery returns.

Table 12. Purse seine THA<sup>1</sup> harvest in weight of coho salmon in Southeast Alaska by hatchery and statistical weeks, 1987.

Weight by THA <sup>1</sup> (lb)						
Week	Date		Neets Bay 101-95	Klawock 103-65	Hidden Falls 112-22	Total
27	28-Jun	- 04-Jul			220	220
28	05-Jul	- 11-Jul			733	733
29	12-Jul	- 18-Jul			1,009	1,009
30	19-Jul	- 25-Jul			6,338	6,338
31	26-Jul	- 01-Aug				
32	02-Aug	- 08-Aug			2,597	2,597
33	09-Aug	- 15-Aug			8	8
34	16-Aug	- 22-Aug			241	241
35	23-Aug	- 29-Aug				
36	30-Aug	- 05-Sep		17,490		17,490
37	06-Sep	- 12-Sep		24,994		24,994
38	13-Sep	- 19-Sep		7,795		7,795
39	20-Sep	- 26-Sep	10,858	3,931		14,789
40	27-Sep	- 03-Oct	3,642			3,642
			14,500	54,210	11,146	79,856

<sup>1</sup> Terminal Harvest Area or THA is the area adjacent to a state or private hatchery where commercial fishers may harvest segregated hatchery returns.

Table 13. Average weight of the purse seine THA<sup>1</sup> harvest of coho salmon in Southeast Alaska by hatchery and statistical week, 1987.

Week	Date	Average Weight THA <sup>1</sup> (lb)			Total
		Neets Bay 101-95	Klawock 103-65	Hidden Falls 112-22	
27	28-Jun - 04-Jul			6.1	6.1
28	05-Jul - 11-Jul			6.2	6.2
29	12-Jul - 18-Jul			6.7	6.7
30	19-Jul - 25-Jul			6.6	6.6
31	26-Jul - 01-Aug				
32	02-Aug - 08-Aug			7.1	7.1
33	09-Aug - 15-Aug			8.0	8.0
34	16-Aug - 22-Aug			6.9	6.9
35	23-Aug - 29-Aug				
36	30-Aug - 05-Sep		7.2		7.2
37	06-Sep - 12-Sep		7.3		7.3
38	13-Sep - 19-Sep		7.9		7.9
39	20-Sep - 26-Sep	9.0	8.1		8.7
40	27-Sep - 03-Oct	9.5			9.5
Total - lb		9.1	7.4	6.7	7.5
- kg		4.1	3.4	3.0	3.4

<sup>1</sup> Terminal Harvest Area or THA is the area adjacent to a state or private hatchery where commercial fishers may harvest segregated hatchery returns.

Table 14. Drift gillnet harvest in numbers of coho salmon in Southeast Alaska by district and statistical week, 1987.

Catch by District (numbers)							
Week	Date	101	106	108	111	115	Total
26	21-Jun - 27-Jun	580	331	6	99	34	1,050
27	28-Jun - 04-Jul	575	982	3	307	423	2,290
28	05-Jul - 11-Jul	281	2,516	7	220	258	3,282
29	12-Jul - 18-Jul	891	3,252	4	129	364	4,640
30	19-Jul - 25-Jul	1,581	3,771		1,309	795	7,456
31	26-Jul - 01-Aug	555	4,228		2,064	733	7,580
32	02-Aug - 08-Aug	1,940	5,794		1,687	539	9,960
33	09-Aug - 15-Aug	1,675	2,918		2,878	572	8,043
34	16-Aug - 22-Aug				2,416	1,123	3,539
35	23-Aug - 29-Aug	1,774	3,406	49	9,239	1,876	16,344
36	30-Aug - 05-Sep	5,589	2,624	218	8,491	3,936	20,858
37	06-Sep - 12-Sep	7,006	2,188	239	4,731	14,998	29,162
38	13-Sep - 19-Sep	11,009	2,524	489	824	12,042	26,888
39	20-Sep - 26-Sep	3,188			626	10,097	13,911
40	27-Sep - 03-Oct				159	4,454	4,613
41	04-Oct - 10-Oct					679	679
42	11-Oct - 17-Oct					712	712
Total		36,644	34,534	1,015	35,179	53,635	161,007
Percent		22.8	21.4	0.6	21.8	33.3	100.0

Table 15. Drift gillnet harvest in weight of coho salmon in Southeast Alaska by district and statistical week, 1987.

Weight by District (lb)							
Week	Date	101	106	108	111	115	Total
26	21-Jun - 27-Jun	3,206	1,671	30	595	213	5,715
27	28-Jun - 04-Jul	3,466	5,883	17	1,890	2,711	13,967
28	05-Jul - 11-Jul	1,780	14,643	38	1,305	1,675	19,441
29	12-Jul - 18-Jul	5,394	18,784	27	919	1,660	26,784
30	19-Jul - 25-Jul	10,024	21,860		8,759	4,741	45,384
31	26-Jul - 01-Aug	3,420	24,481		13,518	4,588	46,007
32	02-Aug - 08-Aug	13,742	37,714		12,154	3,974	67,584
33	09-Aug - 15-Aug	11,874	21,052		22,462	4,095	59,483
34	16-Aug - 22-Aug				20,462	8,615	29,077
35	23-Aug - 29-Aug	13,000	26,537	392	85,902	14,970	140,801
36	30-Aug - 05-Sep	42,262	24,805	2,034	83,408	33,538	186,047
37	06-Sep - 12-Sep	58,635	20,789	2,345	46,784	133,002	261,555
38	13-Sep - 19-Sep	94,651	25,661	5,151	8,368	113,203	247,034
39	20-Sep - 26-Sep	28,978			5,944	94,844	129,766
40	27-Sep - 03-Oct				1,595	43,309	44,904
41	04-Oct - 10-Oct					6,787	6,787
42	11-Oct - 17-Oct					6,949	6,949
Total		290,432	243,880	10,034	314,065	478,874	1,337,285

Table 16. Average weight of the drift gillnet harvest of coho salmon in Southeast Alaska by district and statistical week, 1987.

Average Weight by District (lb)							
Week	Date	101	106	108	111	115	Total
26	21-Jun - 27-Jun	5.5	5.0	5.0	6.0	6.3	5.4
27	28-Jun - 04-Jul	6.0	6.0	5.7	6.2	6.4	6.1
28	05-Jul - 11-Jul	6.3		5.4	5.9	6.5	5.9
29	12-Jul - 18-Jul	6.1	5.8	6.8	7.1	4.6	5.8
30	19-Jul - 25-Jul	6.3	5.8		6.7	6.0	6.1
31	26-Jul - 01-Aug	6.2	5.8		6.5	6.3	6.1
32	02-Aug - 08-Aug	7.1	6.5		7.2	7.4	6.8
33	09-Aug - 15-Aug	7.1	7.2		7.8	7.2	7.4
34	16-Aug - 22-Aug				8.5	7.7	8.2
35	23-Aug - 29-Aug	7.3	7.8	8.0	9.3	8.0	8.6
36	30-Aug - 05-Sep	7.6	9.5	9.3	9.8	8.5	8.9
37	06-Sep - 12-Sep	8.4	9.5	9.8	9.9	8.9	9.0
38	13-Sep - 19-Sep	8.6	10.2	10.5	10.2	9.4	9.2
39	20-Sep - 26-Sep	9.1				9.4	9.3
40	27-Sep - 03-Oct					9.7	9.7
41	04-Oct - 10-Oct					10.0	10.0
42	11-Oct - 17-Oct					9.8	9.8
Total - lb		7.9	7.1	9.9	8.9	8.9	8.3
kg		3.6	3.2	4.5	4.0	4.0	3.8

Table 17. Drift gillnet THA<sup>1</sup> harvest in numbers of coho salmon in Southeast Alaska by hatchery and statistical week, 1987.

Catch by THA <sup>1</sup> (numbers)				
Week	Date	Nakat Inlet 101-10	Neets Bay 101-95	Total
27	28-Jun - 04-Jul		1	1
28	05-Jul - 11-Jul			
29	12-Jul - 18-Jul			
30	19-Jul - 25-Jul			
31	26-Jul - 01-Aug			
32	02-Aug - 08-Aug			
33	09-Aug - 15-Aug			
34	16-Aug - 22-Aug			
35	23-Aug - 29-Aug			
36	30-Aug - 05-Sep			
37	06-Sep - 12-Sep			
38	13-Sep - 19-Sep		624	624
39	20-Sep - 26-Sep			
40	27-Sep - 03-Oct		838	838
41	04-Oct - 10-Oct	10		10
		10	1,463	1,473

<sup>1</sup> Terminal Harvest Area or THA is the area adjacent to a state or private hatchery where commercial fishers may harvest segregated hatchery returns.

Table 18. Drift gillnet THA<sup>1</sup> harvest in weight of coho salmon in Southeast Alaska by hatchery and statistical week, 1987.

Weight by THA <sup>1</sup> (lb)				
Week	Date	Nakat Inlet 101-10	Neets Bay 101-95	Total
27	28-Jun - 04-Jul		6	6
28	05-Jul - 11-Jul			
29	12-Jul - 18-Jul			
30	19-Jul - 25-Jul			
31	26-Jul - 01-Aug			
32	02-Aug - 08-Aug			
33	09-Aug - 15-Aug			
34	16-Aug - 22-Aug			
35	23-Aug - 29-Aug			
36	30-Aug - 05-Sep			
37	06-Sep - 12-Sep			
38	13-Sep - 19-Sep		5,759	5,759
39	20-Sep - 26-Sep			
40	27-Sep - 03-Oct		8,642	8,642
41	04-Oct - 10-Oct	97		97
		97	14,407	14,504

<sup>1</sup> Terminal Harvest Area or THA is the area adjacent to a state or private hatchery where commercial fishers may harvest segregated hatchery returns.

Table 19. Average weight of the drift gillnet THA<sup>1</sup> harvest of coho salmon in Southeast Alaska by hatchery and statistical week, 1987.

Average Weight by THA <sup>1</sup> (lb)					
Week	Date		Nakat Inlet 101-10	Neets Bay 101-95	Total
27	28-Jun	- 04-Jul		6.0	6.0
28	05-Jul	- 11-Jul			
29	12-Jul	- 18-Jul			
30	19-Jul	- 25-Jul			
31	26-Jul	- 01-Aug			
32	02-Aug	- 08-Aug			
33	09-Aug	- 15-Aug			
34	16-Aug	- 22-Aug			
35	23-Aug	- 29-Aug			
36	30-Aug	- 05-Sep			
37	06-Sep	- 12-Sep			
38	13-Sep	- 19-Sep		9.2	9.2
39	20-Sep	- 26-Sep			
40	27-Sep	- 03-Oct		10.3	10.3
41	04-Oct	- 10-Oct	9.7		9.7
Total - lb			9.7	9.8	9.8
kg			4.4	4.4	4.4

<sup>1</sup> Terminal Harvest Area or THA is the area adjacent to a state or private hatchery where commercial fishers may harvest segregated hatchery returns.

Table 20. Trap harvest of coho salmon on the Annette Island Indian Reserve, Southeast Alaska, by District 101-28 and statistical week in numbers, weight and average weight, 1987.

District 101-28					
Date	Week	Number of Fish	Weight of Fish (lb)	Average Weight of Fish	
05-Jul - 11-Jul	28	64	320	5.0	
12-Jul - 18-Jul	29	118	588	5.0	
19-Jul - 25-Jul	30	236	1,179	5.0	
26-Jul - 01-Aug	31	58	291	5.0	
02-Aug - 08-Aug	32	32	158	4.9	
09-Aug - 15-Aug	33	68	343	5.0	
16-Aug - 22-Aug	34	76	379	5.0	
23-Aug - 29-Aug	35	17	84	5.0	
30-Aug - 05-Sep	36	65	324	5.0	
Total		734	3,666	5.0 - lb	
				2.3 - kg	

Table 21. Purse seine harvest of coho salmon on the Annette Island Indian Reserve, Southeast Alaska, by District 101, subdistricts 24, 26, 28, and 42 and statistical week in numbers, weight and average weight, 1987.

Catch by Subdistrict (numbers)						
Date	Week	101-24	101-26	101-28	101-42	Total
02-Aug - 08-Aug	32			23		23
09-Aug - 15-Aug	33	11	18		6	35
16-Aug - 22-Aug	34					
23-Aug - 29-Aug	35		80			80
30-Aug - 05-Sep	36		558	1,426		1,984
06-Sep - 12-Sep	37		1,566	832		2,398
13-Sep - 19-Sep	38		893	3,230		4,123
20-Sep - 26-Sep	39		43	518		561
Total		11	3,158	6,029	6	9,204

Weight of Fish (lb)						
Date	Week	101-24	101-26	101-28	101-42	Total
02-Aug - 08-Aug	32			139		139
09-Aug - 15-Aug	33	82	104		54	240
16-Aug - 22-Aug	34					
23-Aug - 29-Aug	35		814			814
30-Aug - 05-Sep	36		5,070	13,322		18,392
06-Sep - 12-Sep	37		15,913	8,572		24,485
13-Sep - 19-Sep	38		8,948	32,322		41,270
20-Sep - 26-Sep	39		443	5,203		5,646
Total		82	31,292	59,558	54	90,986

Average Weight (lb)						
Date	Week	101-24	101-26	101-28	101-42	Total
02-Aug - 08-Aug	32			6.0		6.0
09-Aug - 15-Aug	33	7.5	5.8		9.0	6.9
16-Aug - 22-Aug	34					
23-Aug - 29-Aug	35		10.2			10.2
30-Aug - 05-Sep	36		9.1	9.3		9.3
06-Sep - 12-Sep	37		10.2	10.3		10.2
13-Sep - 19-Sep	38		10.0	10.0		10.0
20-Sep - 26-Sep	39		10.3	10.0		10.1
Total - lb		7.5	9.9	9.9	9.0	9.9
- kg		3.4	4.5	4.5	4.1	4.5

Table 22. Drift gillnet harvest in numbers of coho salmon on the Annette Island Indian Reserve, Southeast Alaska, by District 101, subdistricts 24, 26, 28, and 42, and statistical week, 1987.

Catch by Subdistrict (numbers)						
Date	Week	101-24	101-26	101-28	101-42	Total
21-Jun - 27-Jun	26			103		103
28-Jun - 04-Jul	27		39	208		247
05-Jul - 11-Jul	28		2	746		748
12-Jul - 18-Jul	29		4	401		405
19-Jul - 25-Jul	30	65	21	615	6	707
26-Jul - 01-Aug	31	40	64	516	100	720
02-Aug - 08-Aug	32	63	41	220	29	353
09-Aug - 15-Aug	33	50	23	198	58	329
16-Aug - 22-Aug	34					
23-Aug - 29-Aug	35	48	474	1,163		1,685
30-Aug - 05-Sep	36	179	321	2,730	310	3,540
06-Sep - 12-Sep	37	774	1,891	3,018		5,683
13-Sep - 19-Sep	38	42	2,121			2,918
20-Sep - 26-Sep	39	148	1,316	2,946	22	4,432
Total		1,409	6,317	15,782	525	18,952

Table 23. Drift gillnet harvest in weight of coho salmon on the Annette Island Indian Reserve, Southeast Alaska, by District 101, subdistricts 24, 26, 28, and 42, and statistical week, 1987.

Weight of Fish (lb)						
Date	Week	101-24	101-26	101-28	101-42	Total
21-Jun - 27-Jun	26			521		521
28-Jun - 04-Jul	27		227	1,167		1,394
05-Jul - 11-Jul	28		14	4,911		4,925
12-Jul - 18-Jul	29		23	2,669		2,692
19-Jul - 25-Jul	30	364	142	4,199	43	4,748
26-Jul - 01-Aug	31	305	467	3,327	609	4,708
02-Aug - 08-Aug	32	470	300	1,417	217	2,404
09-Aug - 15-Aug	33	396	161	1,514	485	2,556
16-Aug - 22-Aug	34	409				
23-Aug - 29-Aug	35		3,681	9,482		13,163
30-Aug - 05-Sep	36	1,648	2,959	25,811	2,980	33,398
06-Sep - 12-Sep	37	7,592	18,526	30,079	250	56,447
13-Sep - 19-Sep	38	423	21,087			29,116
20-Sep - 26-Sep	39	1,500	12,961	29,754		44,215
Total		11,607	47,587	114,213	4,584	126,956

Table 24. Average weight of the drift gillnet harvest of coho salmon on the Annette Island Indian Reserve, Southeast Alaska, by District 101, subdistricts 24, 26, 28, and 42, and statistical week, 1987.

		Average Weight (lb)				
Date	Week	101-24	101-26	101-28	101-42	Total
21-Jun - 27-Jun	26			5.1		5.1
28-Jun - 04-Jul	27		5.8	5.6		5.6
05-Jul - 11-Jul	28		7.0	6.6		6.6
12-Jul - 18-Jul	29		5.8	6.7		6.6
19-Jul - 25-Jul	30	5.6	6.8	6.8	7.2	6.7
26-Jul - 01-Aug	31	7.6	7.3	6.5	6.1	6.5
02-Aug - 08-Aug	32	7.5	7.3	6.7	7.5	6.8
09-Aug - 15-Aug	33	7.9	7.0	7.7	8.4	7.8
16-Aug - 22-Aug	34					
23-Aug - 29-Aug	35	8.5	7.8	8.2		7.8
30-Aug - 05-Sep	36	9.2	9.2	9.5	9.6	9.4
06-Sep - 12-Sep	37	9.8	9.8	10.0		9.9
13-Sep - 19-Sep	38	10.1	9.9			10.0
20-Sep - 26-Sep	39	10.1	9.9	10.1	11.4	10.0
Total - lb		8.2	7.5	7.2	8.7	6.7
- kg		3.7	3.4	3.3	3.9	3.0

Table 25. SHA<sup>1</sup> harvest of coho salmon in Southeast Alaska by hatchery, and statistical week, in numbers, weight, and average weight, 1987.

Catch by SHA <sup>1</sup> (numbers)						
Week	Date	Nakat Inlet 101-10	Neets Bay 101-95	Earl West 107-40	Hidden Falls 112-22	Total
27	28-Jun - 04-Jul				19	19
28	05-Jul - 11-Jul					
29	12-Jul - 18-Jul				9	9
30	19-Jul - 25-Jul					
31	26-Jul - 01-Aug					
32	02-Aug - 08-Aug					
33	09-Aug - 15-Aug					
34	16-Aug - 22-Aug					
35	23-Aug - 29-Aug	201				201
36	30-Aug - 05-Sep	140	1,930	608		2,678
37	06-Sep - 12-Sep	391	8,174	774		9,339
38	13-Sep - 19-Sep	287	15,502	852		16,641
39	20-Sep - 26-Sep	81	5,976	386		6,443
40	27-Sep - 03-Oct	84	2,982	544		3,610
41	04-Oct - 10-Oct		1,226	226		1,452
		1,184	35,790	3,390	28	40,392
Weight by SHA <sup>1</sup> (lb)						
Week	Date	Nakat Inlet 101-10	Neets Bay 101-95	Earl West 107-40	Hidden Falls 112-22	Total
27	28-Jun - 04-Jul				78	78
28	05-Jul - 11-Jul					
29	12-Jul - 18-Jul				49	49
30	19-Jul - 25-Jul					
31	26-Jul - 01-Aug					
32	02-Aug - 08-Aug					
33	09-Aug - 15-Aug					
34	16-Aug - 22-Aug					
35	23-Aug - 29-Aug	1,424				1,424
36	30-Aug - 05-Sep	1,155	17,049	6,102		24,306
37	06-Sep - 12-Sep	3,037	74,329	8,339		85,705
38	13-Sep - 19-Sep	2,297	151,816	9,162		163,275
39	20-Sep - 26-Sep	836	64,326	4,234		69,396
40	27-Sep - 03-Oct	611	31,337	5,938		37,886
41	04-Oct - 10-Oct		12,732	2,178		14,910
		9,360	351,589	35,953	127	397,029
Average Weight by SHA <sup>1</sup> (lb)						
Week	Date	Nakat Inlet 101-10	Neets Bay 101-95	Earl West 107-40	Hidden Falls 112-22	Total
27	28-Jun - 04-Jul				4.1	4.1
28	05-Jul - 11-Jul					
29	12-Jul - 18-Jul				5.4	5.4
30	19-Jul - 25-Jul					
31	26-Jul - 01-Aug					
32	02-Aug - 08-Aug					
33	09-Aug - 15-Aug					
34	16-Aug - 22-Aug					
35	23-Aug - 29-Aug	7.1				7.1
36	30-Aug - 05-Sep	8.3	8.8	10.0		9.1
37	06-Sep - 12-Sep	7.8	9.1	10.8		9.2
38	13-Sep - 19-Sep	8.0	9.8	10.8		9.8
39	20-Sep - 26-Sep	10.3	10.8	11.0		10.8
40	27-Sep - 03-Oct	7.3	10.5	10.9		10.5
41	04-Oct - 10-Oct		10.4	9.6		10.3
Total - lb		7.9	9.8	10.6	4.5	9.8
- kg		3.6	4.4	4.8	2.1	4.4

<sup>1</sup> Special Harvest Area or SHA is an area where private hatchery returns segregate from wild stock and the private hatchery operator may harvest returns for cost recovery.

Table 26. SHA<sup>1</sup> harvest of coho salmon on the Annette Island Indian Reserve, Southeast Alaska, by District 101-26 and statistical week in numbers, weight, and average weight, 1987.

SHA <sup>1</sup> District 101-26					
Date		Week	Number of Fish	Weight of Fish (lb)	Average Weight of Fish (lb)
30-Aug - 05-Sep		36	198	2,163	10.9
06-Sep - 12-Sep		37			
13-Sep - 19-Sep		38	815	8,505	10.4
20-Sep - 26-Sep		39	766	7,687	10.0
Total			1,779	18,355	10.3 - lb 4.7 - kg

<sup>1</sup> Special Harvest Area or SHA is an area where private hatchery returns segregate from wild stocks and the private hatchery operator may harvest returns for cost recovery.

Table 27. Test fishery harvest in numbers of coho salmon in Southeast Alaska by district, subdistrict, and statistical week, 1987.

Catch by District and Sub-district (numbers)													
Week	Date		101-29	101-41	102-10	102-20	103-11	104-10	104-20	104-30	104-35	104-40	Total
25	14-Jun	20-Jun											
26	21-Jun	27-Jun											
27	28-Jun	04-Jul											
28	05-Jul	11-Jul											
29	12-Jul	18-Jul											
30	19-Jul	25-Jul											
31	26-Jul	01-Aug											
32	02-Aug	08-Aug											
33	09-Aug	15-Aug			23	39		47					109
34	16-Aug	22-Aug	25	16	17		33	10	34	23	74	75	307
35	23-Aug	29-Aug											
36	30-Aug	05-Sep											
37	06-Sep	12-Sep											
38	13-Sep	19-Sep											
Total			25	16	40	39	33	57	34	23	74	75	416

Catch by District and Sub-district (numbers)													
Week	Date		105-10	106-41	108-60	109-42	109-43	109-51	109-62	110-24	110-31	111-32	Total
25	14-Jun	20-Jun		7									7
26	21-Jun	27-Jun		5									5
27	28-Jun	04-Jul		18									18
28	05-Jul	11-Jul		62		1				4	1	2	70
29	12-Jul	18-Jul		94		4						30	128
30	19-Jul	25-Jul		68	2	4						9	83
31	26-Jul	01-Aug		80	9							34	123
32	02-Aug	08-Aug											
33	09-Aug	15-Aug	9					11	30				159
34	16-Aug	22-Aug		165			10		34				307
35	23-Aug	29-Aug		268								35	303
36	30-Aug	05-Sep		86								178	264
37	06-Sep	12-Sep										100	100
38	13-Sep	19-Sep										156	156
Total			9	853	11	9	10	11	64	4	1	544	1,932

Table 28. Test fishery harvest in weight of coho salmon in Southeast Alaska by district, subdistrict, and statistical week, 1987.

Weight by District and Sub-district (lb)												
Week	Date	101-29	101-41	102-10	102-20	103-11	104-10	104-20	104-30	104-35	104-40	Total
25	14-Jun - 20-Jun											
26	21-Jun - 27-Jun											
27	28-Jun - 04-Jul											
28	05-Jul - 11-Jul											
29	12-Jul - 18-Jul											
30	19-Jul - 25-Jul											
31	26-Jul - 01-Aug											
32	02-Aug - 08-Aug											
33	09-Aug - 15-Aug			164	390		357					911
34	16-Aug - 22-Aug	165	110	110		249	98	320	196	693	681	2,622
35	23-Aug - 29-Aug											
36	30-Aug - 05-Sep											
37	06-Sep - 12-Sep											
38	13-Sep - 19-Sep											
		165	110	274	390	249	455	320	196	693	681	3,533
Weight by District and Sub-district (lb)												
Week	Date	105-10	106-41	108-60	109-42	109-43	109-51	109-62	110-24	110-31	111-32	Total
25	14-Jun - 20-Jun		31									31
26	21-Jun - 27-Jun		25									25
27	28-Jun - 04-Jul		118									118
28	05-Jul - 11-Jul		366		8				26	7	9	416
29	12-Jul - 18-Jul		552		19						215	786
30	19-Jul - 25-Jul		416	12	23						65	516
31	26-Jul - 01-Aug		471	55							235	761
32	02-Aug - 08-Aug											
33	09-Aug - 15-Aug	66					76	205				1,258
34	16-Aug - 22-Aug		1,236			70		239				4,167
35	23-Aug - 29-Aug		2,557									2,918
36	30-Aug - 05-Sep		825								361	2,780
37	06-Sep - 12-Sep										1,955	1,090
38	13-Sep - 19-Sep										1,679	1,679
		66	6,597	67	50	70	76	444	26	7	5,609	16,545

Table 29. Average weight of the test fishery harvest of coho salmon in Southeast Alaska by district, subdistrict, statistical week, 1987.

Average Weight by District and Sub-district (lb)													
Week	Date		101-29	101-41	102-10	102-20	103-11	104-10	104-20	104-30	104-35	104-40	Total
25	14-Jun	20-Jun											
26	21-Jun	27-Jun											
27	28-Jun	04-Jul											
28	05-Jul	11-Jul											
29	12-Jul	18-Jul											
30	19-Jul	25-Jul											
31	26-Jul	01-Aug											
32	02-Aug	08-Aug											
33	09-Aug	15-Aug			7.1	10.0		7.6					
34	16-Aug	22-Aug	6.6	6.9	6.5		7.5	9.8	9.4	8.5	9.4	9.1	8.5
35	23-Aug	29-Aug											
36	30-Aug	05-Sep											
37	06-Sep	12-Sep											
38	13-Sep	19-Sep											
Total - lb			6.6	6.9	6.9	10.0	7.5	8.0	9.4	8.5	9.4	9.1	8.5
- kg			3.0	3.1	3.1	4.5	3.4	3.6	4.3	3.9	4.3	4.1	3.9

Average Weight by District and Sub-district (lb)													
Week	Date		105-10	106-41	108-60	109-42	109-43	109-51	109-62	110-24	110-31	111-32	Total
25	14-Jun	20-Jun		4.4									4.4
26	21-Jun	27-Jun		5.0									5.0
27	28-Jun	04-Jul		6.6									6.6
28	05-Jul	11-Jul		5.9		8.0				6.5	7.0	4.5	5.9
29	12-Jul	18-Jul		5.9		4.8						7.2	6.1
30	19-Jul	25-Jul		6.1	6.0	5.8						7.2	6.2
31	26-Jul	01-Aug		5.9	6.1							6.9	6.2
32	02-Aug	08-Aug											
33	09-Aug	15-Aug	7.3					6.9	6.8				7.9
34	16-Aug	22-Aug		7.5			7.0		7.0				13.6
35	23-Aug	29-Aug		9.5								10.3	9.6
36	30-Aug	05-Sep		9.6								11.0	10.5
37	06-Sep	12-Sep										10.9	10.9
38	13-Sep	19-Sep										10.8	10.8
Total - lb			7.3	7.7	6.1	5.6	7.0	6.9	6.9	6.5	7.0	10.3	8.6
- kg			3.3	3.5	2.8	2.5	3.2	3.1	3.1	2.9	3.2	4.7	3.9

Table 30. Test fishery harvest of coho salmon on the Annette Island Indian Reserve, Southeast Alaska, by District 101, subdistricts 24 and 28, and statistical week in numbers, weight, and average weight, 1987.

District 101-24				
Date	Week	Number of Fish	Weight of Fish (lb)	Average Weight of Fish
16-Aug - 22-Aug	34	22	168	7.6 - lb 3.4 - kg
District 101-28				
Date	Week	Number of Fish	Weight of Fish (lb)	Average Weight of Fish
16-Aug - 22-Aug	34	22	218	9.9 - lb 4.5 - kg

Table 31. Subsistence harvest in numbers of coho salmon in Southeast Alaska, 1987.

Stream Number	System	Reported Harvest <sup>a</sup>
112-67-035	Salt Lake/Hasselborg	105
114-80-020	Excursion Inlet	2
Total		107

<sup>a</sup> Not all permits issued were returned, so reported harvest may be less than actual harvest.

Table 32. Canadian commercial inriver gillnet harvest of coho salmon from the Taku and Stikine Rivers, 1987.

Date	Statistical Week	Taku River	Days Fished	Boats	Catch per Boat/Day	Lower Stikine River	Days Fished	Boats	Catch per Boat/Day
28-Jun - 04-Jul	27	0	1	11	0.0	0	1	15	0.0
05-Jul - 11-Jul	28	2	1	13	0.2	0	1	16	0.0
12-Jul - 18-Jul	29	15	2	13	0.6	0	1	16	0.0
19-Jul - 25-Jul	30	160	3	12	4.4	0	1	16	0.0
26-Jul - 01-Aug	31	77	2	12	3.2	3	1	16	0.2
02-Aug - 08-Aug	32	768	4	12	16.0	20	2	16	0.6
09-Aug - 15-Aug	33	625	2	13	24.0	161	1	17	9.5
16-Aug - 22-Aug	34	596	1	13	45.8	359	1	15	23.9
23-Aug - 29-Aug	35	385	1	12	32.1	417	1	14	29.8
30-Aug - 05-Sep	36	1,017	2	12	42.4	404	2	15	13.5
06-Sep - 12-Sep	37	587	2	11	26.7	2,287	3	15	50.8
13-Sep - 19-Sep	38	524	2.2	5	47.6	1,201	2	14	42.9
20-Sep - 26-Sep	39	843	3	5	56.2	876	3	9	32.4
Total		5,599	26.2	11	19.3	5,728	20	15	19.2

Table 33. Age composition of the Southeast Alaska troll fishery harvest of coho salmon by area and period, 1987.

Brood Year and Age Class									
	1985	1984		1983		1982	1981	1980	Total
	1.0	1.1	2.0	2.1	3.0	3.1	4.1	5.1	
<b>Northwest</b> <sup>a/</sup>									
Statistical Weeks	25	-	29	(June 20 - July 18)					
All Fish									
Sample Number		177		249		66	3		495
Percent		35.8		50.3		13.3	0.6		100.0
Std. Error		2.2		2.2		1.5	0.3		
Number		39546		55632		14646	670		110594
Statistical Weeks	30	-	31	(July 19 - August 1)					
All Fish									
Sample Number		242		437		120	8	2	809
Percent		29.9		54.0		14.8	1.0	0.2	100.0
Std. Error		1.6		1.7		1.2	0.3	0.2	
Number		31828		57475		15783	1052	263	106401
Statistical Weeks	32	-	33	(August 2 - 15)					
All Fish									
Sample Number		174		288		60	2		524
Percent		33.2		55.0		11.5	0.4		100.0
Std. Error		2.1		2.2		1.4	0.3		
Number		20589		34078		7100	237		62003
Statistical Weeks	34	-	35	(August 16 - 29)					
All Fish									
Sample Number		198	1	281		67	7		554
Percent		35.7	0.2	50.7		13.0	1.1		100.0
Std. Error		2.0		2.1		1.5	0.4		
Number		59091	298	83862		20294	1791		165336
Statistical Weeks	36	-	39	(August 30 - Sept. 20)					
All Fish									
Sample Number		173		266	1	67	7		514
Percent		33.7		51.8	0.2	13.0	1.4		100.0
Std. Error		2.1		2.2		1.5	0.5		
Number		26529		40790	153	10274	1073		78820
Combined Periods (Percentages are weighted by period catches)									
All Fish									
Sample Number		964	1	1521	1	381	26	2	2896
Percent		33.9	0.1	52.0	<0.1	13.0	0.9	0.1	100.0
Std. Error		0.9		1.0		0.7	0.2	<0.1	
Number		177583	298	27837	153	68196	4823	263	523154
<b>Southwest</b> <sup>b/</sup>									
Statistical Weeks	25	-	30	(June 14 - July 25)					
All Fish									
Sample Number		232		282		74	6		594
Percent		39.1		47.5		12.5	1.0		100.0
Std. Error		2.0		2.0		1.4	0.4		
Number		62062		75437		19795	1605		158899
Statistical Weeks	31	-	34	(July 26 - August 22)					
All Fish									
Sample Number		312		346		117	21		796
Percent		39.2		43.5		14.7	2.6		100.0
Std. Error		1.7		1.8		1.3	0.6		
Number		55967		62066		20988	3767		142787

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Table 33. (page 2 of 2)

Brood Year and Age Class									
	1985	1984		1983		1982	1981	1980	Total
	1.0	1.1	2.0	2.1	3.0	3.1	4.1	5.1	
<b>Southwest</b>									
Statistical Weeks	35	-	39	(August 23 - Sept. 20)					
All Fish									
Sample Number		298		272		112	16	1	699
Percent		42.6		38.9		16.0	2.3	0.1	100.0
Std. Error		1.8		1.8		1.4	0.6		
Number		11396		10402		4283	612	38	26731
Combined Periods (Percentages are weighted by period catches)									
All Fish									
Sample Number		842		900		303	43	1	2089
Percent		39.4		45.0		13.7	1.8	<0.1	100.0
Std. Error		1.2		1.3		0.9	0.3		
Number		129424		147904		45066	5984	38	328417
<b>Northeast</b> <sup>c/</sup>									
Statistical Weeks	25	-	39	(June 20 - Sept. 20)					
All Fish									
Sample Number	1	222		418		100	8	1	750
Percent	0.1	29.6		55.7		13.3	1.1	0.1	100.0
Std. Error		1.7		1.8		1.2	0.4		
Number	138	30537		57498		13755	1100	138	103166
<b>Southeast</b> <sup>d/</sup>									
Statistical Weeks	25	-	39	(June 14 - Sept. 20)					
All Fish									
Sample Number		360		332	1	92	12		797
Percent		45.2		41.7	0.1	11.5	1.5		100.0
Std. Error		1.8		1.7		1.1	0.4		
Number		39471		36401	110	10087	1316		87385
a/	Districts 113, 114, 116, 154, 156, 157, 181, 189, and 191.								
b/	Districts 103, 104, 150, and 152.								
c/	Districts 109, 110, 111, 112, and 115.								
d/	Districts 101, 102, 105, 106, 107 and 108.								

Table 34. Coho salmon age composition for years 1969, 1970, 1982, 1983, 1984, 1985, 1986, and 1987 for selected Southeast Alaska troll and drift gillnet fisheries.

Gear	District	Year	Sample Size	Percent by Age Class				Mean Freshwater Age
				1.1	2.1	3.1	4.1	
Troll	104	1969	419	25.1	66.1	8.8		1.84
		1970	49	10.2	71.4	14.3	4.1	2.12
		1982	160	59.4	40.0	0.6		1.41
		1983	981	68.1	31.0	0.8	0.1	1.33
		1984	1,698	65.8	33.9	0.3		1.35
		1985	1,660	52.3	43.8	3.8	0.1	1.52
		1986	1,199	57.8	36.0	5.4	0.8	1.45
		1987	2,089	39.6	45.4	13.3	1.7	1.79
Troll	114	1969	449	28.3	62.8	8.9		1.81
		1970	424	17.5	70.3	11.6	0.7	1.96
		1982	444	48.7	49.8	1.6		1.53
		1983	1,432	44.2	53.8	2.0		1.58
		1984	1,581	50.7	49.0	0.3		1.50
		1985	1,623	43.1	50.2	6.3	0.4	1.54
		1986	501	43.2	52.3	4.3	0.1	1.60
		1987	421	39.4	50.8	9.5	0.3	1.83
Gillnet	108	1969	373	42.6	54.2	2.9	0.3	1.61
		1970	220	12.7	72.2	14.6		2.02
		1982	215	37.7	58.6	3.7		1.66
		1983	65	29.2	70.8			1.71
		1984	70	52.9	47.1			1.47
		1985	127	40.2	52.0	7.1	0.8	1.69
		1986	72	48.6	47.2	4.2		1.56
		1987	123	45.4	41.3	12.9	0.5	1.86
Gillnet	111	1969	247	32.0	65.2	2.8		1.71
		1970	255	30.2	62.8	6.7	0.3	1.77
		1982	508	42.3	55.1	2.6		1.60
		1983	578	51.8	47.9	0.3		1.49
		1984	568	49.7	50.0	0.3		1.51
		1985	569	50.1	46.9	3.0		1.53
		1986	527	43.5	52.9	1.1	2.3	1.62
		1987	583	23.4	69.3	6.9	0.5	1.85

<sup>a</sup> Age composition from the Southern Outside area (Districts 103, 104 and 152) troll harvests. 150

Table 35. Average length (mm) and standard error of coho salmon caught in the Southeast Alaska troll fishery by area, period, and age class, 1987.

		Brood Year and Age Class							
		1985	1984		1983		1982	1981	1980
		1.0	1.1	2.0	2.1	3.0	3.1	4.1	5.1
<b>Northwest</b> <sup>a/</sup>									
Statistical Weeks	25 - 29	(June 14 - July 18)							
All Fish									
Avg. Length			566		586		587	585	
Std. Error			4.5		3.4		8.2		
Sample Size			86		131		33	1	
Statistical Weeks	30 - 31	(July 19 - August 1)							
All Fish									
Avg. Length			597		612		615	658	590
Std. Error			3.3		2.2		3.7	16.9	
Sample Size			173		332		97	5	1
Statistical Weeks	32 - 33	(August 2 - 15)							
All Fish									
Avg. Length			621		627		628		
Std. Error			4.2		3.3		5.6		
Sample Size			74		108		27		
Statistical Weeks	34 - 35	(August 16 - 29)							
All Fish									
Avg. Length			635	345	631		645	623	
Std. Error			3.9		2.8		6.5	26.2	
Sample Size			97	1	180		43	3	
Statistical Weeks	36 - 39	(August 30 - Sept. 20)							
All Fish									
Avg. Length			647		647	370	650	644	
Std. Error			3.9		3.4		6.8	18.6	
Sample Size			65		123	1	36	5	
Combined Periods (Unweighted)									
All Fish									
Avg. Length			610	345	619	370	624	640	590
Std. Error			2.1		1.4		2.9	11.1	
Sample Size			495	1	874	1	236	14	1
<b>Southwest</b> <sup>b/</sup>									
Statistical Weeks	25 - 30	(June 14 - July 25)							
All Fish									
Avg. Length			601		604		615	630	
Std. Error			4.2		3.8		6.6	23.5	
Sample Size			141		179		45	4	
Statistical Weeks	31 - 34	(July 26 - August 22)							
All Fish									
Avg. Length			614		618		626	645	
Std. Error			3.0		3.0		3.7	9.6	
Sample Size			204		238		76	16	

-Continued-

Table 35. (page 2 of 2).

		Brood Year and Age Class							
		1985	1984		1983		1982	1981	1980
		1.0	1.1	2.0	2.1	3.0	3.1	4.1	5.1
<b>Southwest</b>									
Statistical Weeks	35 - 39	(August 23 - Sept. 20)							
All Fish									
Avg. Length			637		636		646	644	
Std. Error			2.7		2.9		3.5	9.0	
Sample Size			239		221		97	13	
Combined Periods (Unweighted)									
All Fish									
Avg. Length			620		621		633	643	
Std. Error			1.9		1.9		2.6	6.3	
Sample Size			584		638		218	33	
<b>Northeast</b> <sup>c/</sup>									
Statistical Weeks	25 - 39	(June 14 - Sept. 20)							
All Fish									
Avg. Length		470	602		622		622	634	645
Std. Error			4.0		2.5		5.2	8.9	
Sample Size		1	180		339		91	8	1
<b>Southeast</b> <sup>d/</sup>									
Statistical Weeks	25 - 39	(June 14 - Sept. 20)							
All Fish									
Avg. Length			589		590	295	614	615	
Std. Error			5.0		4.9		7.3		
Sample Size			129		134	1	41	1	

a/ Districts 113, 114, 116, 154, 156, 157, 181, 189, and 191.

b/ Districts 103, 104, 150, and 152.

c/ Districts 109, 110, 111, 112, and 115.

d/ Districts 101, 102, 105, 106, 107, and 108.

Table 36. Age composition of the Southeast Alaska purse seine harvest of coho salmon by district, 1987.

Brood Year and Age Class										
	1985	1984		1983		1982	1981	1980		Total
	1.0	1.1	2.0	2.1	3.0	3.1	4.1	5.1	4.2	
<u>District 101</u>										
Statistical Weeks	29	-	33	(July 12 - August 15)						
All Fish										
Sample Number		12		28		4	1			45
Percent		26.7		62.2		8.9	2.2			100.0
Std. Error		6.6		7.3		4.3				
Number		1691		3946		564	141			6341
<u>District 102</u>										
Statistical Week	37			(Sept. 6 - 12)						
All Fish										
Sample Number		26		51		5				82
Percent		31.7		62.2		6.1				100.0
Std. Error		5.2		5.4		2.7				
Number		5196		10191		999				16386
<u>District 103</u>										
Statistical Weeks	34	-	37	(August 16 - Sept. 12)						
All Fish										
Sample Number		88		162		44	4		1	299
Percent		29.4		54.2		14.7	1.3		0.3	100.0
Std. Error		2.6		2.9		2.0	0.7			
Number		3799		6994		1900	173		43	12909
<u>District 104</u>										
Statistical Weeks	28	-	33	(July 5 - August 15)						
All Fish										
Sample Number		145		130		23		1		299
Percent		48.5		43.5		7.7		0.3		100.0
Std. Error		2.9		2.9		1.5				
Number		23759		21301		3769		164		48992

-Continued-

Table 36. (page 2 of 2)

Brood Year and Age Class											
	1985		1984		1983		1982	1981	1980		Total
	1.0		1.1	2.0	2.1	3.0	3.1	4.1	5.1	4.2	
<b>District 112</b>											
Statistical Weeks	29	-	33	(July 12 - August 15)							
All Fish											
Sample Number	1		80	1	151		14				247
Percent	0.4		32.4	0.4	61.1		5.7				100.0
Std. Error			2.9		3.1		1.5				
Number	38		3051	38	5759		534				9421
<b>District 113</b>											
Statistical Weeks	31	-	36	(July 26 - Sept. 5)							
All Fish											
Sample Number			165	1	81		13	1			261
Percent			63.2	0.4	31.0		5.0	0.4			100.0
Std. Error			2.9		2.8		1.3				
Number			4946	30	2428		390	30			7823
<b>District 114</b>											
Statistical Week	34			(August 16 - 22)							
All Fish											
Sample Number			3		20	1	6				30
Percent			10.0		66.7	3.3	20.0				100.0
Std. Error			5.5		8.7		7.4				
Number			224		1494	75	448				2241

Table 37. Average length (mm) and standard error of coho salmon caught in the Southeast Alaska purse seine fishery by district and age class, 1987.

	Brood Year and Age Class						
	1985	1984		1983	1982	1981	1980
	1.0	1.1	2.0	2.1	3.1	4.1	5.1
<b>District 101</b>							
Statistical Weeks	29	-	33	(July 12 - August 15)			
All Fish							
Avg. Length		539		565	588		
Std. Error		26.1		11.4	13.8		
Sample Size		10		26	4		
<b>District 102</b>							
Statistical Week	37			(Sept. 6 - 12)			
All Fish							
Avg. Length		585		603	619		
Std. Error		16.2		9.9	11.0		
Sample Size		11		17	5		
<b>District 103</b>							
Statistical Weeks	34	-	37	(August 16 - Sept. 12)			
All Fish							
Avg. Length		602		605	593	562	
Std. Error		7.7		5.9	8.8	43.3	
Sample Size		42		77	22	3	
<b>District 104</b>							
Statistical Weeks	28	-	33	(July 5 - August 15)			
All Fish							
Avg. Length		559		569	585		560
Std. Error		6.4		5.0	14.8		
Sample Size		98		95	17		1
<b>District 112</b>							
Statistical Weeks	29	-	33	(July 12 - August 15)			
All Fish							
Avg. Length	390	560	350	590	565		
Std. Error		11.1		7.5	28.4		
Sample Size	1	30	1	60	3		
<b>District 113</b>							
Statistical Weeks	31	-	36	(July 26 - Sept. 5)			
All Fish							
Avg. Length		564		591	597		
Std. Error		13.1		7.5	10.8		
Sample Size		36		54	11		

Table 38. Age composition of the Southeast Alaska drift gillnet harvest of coho salmon by district, 1987.

		Brood Year and Age Class					
		1984	1983		1982	1981	Total
		1.1	1.2	2.1	3.1	4.1	
<b>District 101</b>							
Statistical Weeks		26	-	39	(June 21 - Sept. 26)		
All Fish							
Sample Number		156		251	59	12	478
Percent		32.6		52.5	12.3	2.5	100.0
Std. Error		2.1		2.3	1.5	0.7	
Number		11632		18716	4399	895	35642
<b>District 106</b>							
Statistical Weeks		26	-	38	(June 21 - Sept. 19)		
All Fish							
Sample Number		171	1	317	75	2	566
Percent		30.2	0.2	56.0	13.3	0.4	100.0
Std. Error		1.9	0.2	2.1	1.4	0.2	
Number		10433	61	19341	4576	122	34534
<b>District 108</b>							
Statistical Weeks		26	-	38	(June 21 - Sept. 19)		
All Fish							
Sample Number		42		58	22	1	123
Percent		34.1		47.2	17.9	0.8	100.0
Std. Error		4.0		4.2	3.3	0.8	
Number		347		479	182	8	1015
<b>District 111</b>							
Statistical Weeks		26	-	40	(June 21 - October 3)		
All Fish							
Sample Number		137		401	43	2	583
Percent		23.5		68.8	7.4	0.3	100.0
Std. Error		1.7		1.9	1.1	0.2	
Number		8267		24197	2595	121	35179
<b>District 115</b>							
Statistical Weeks		26	-	42	(June 21 - October 17)		
All Fish							
Sample Number		195		556	114	10	875
Percent		22.3		63.5	13.0	1.1	100.0
Std. Error		1.4		1.6	1.1	0.4	
Number		11953		34081	6988	613	53635

Table 39. Average length (mm) and standard error of coho salmon caught in the Southeast Alaska drift gillnet fishery by district and age class, 1987.

	Brood Year and Age Class				
	1984	1983		1982	1981
	1.1	1.2	2.1	3.1	4.1
<b>District 101</b>					
Statistical Weeks	26	-	39	(June 21 - Sept. 26)	
All Fish					
Avg. Length	574		587	593	585
Std. Error	5.6		4.0	6.2	13.9
Sample Size	146		244	57	12
<b>District 106</b>					
Statistical Weeks	26	-	38	(June 21 - Sept. 19)	
All Fish					
Avg. Length	603	650	599	606	570
Std. Error	3.8		2.4	3.8	50.0
Sample Size	171	1	317	74	2
<b>District 108</b>					
Statistical Weeks	26	-	38	(June 21 - Sept. 19)	
All Fish					
Avg. Length	607		621	627	650
Std. Error	5.7		4.2	8.3	
Sample Size	42		58	22	1
<b>District 111</b>					
Statistical Weeks	26	-	40	(June 21 - October 3)	
All Fish					
Avg. Length	593		610	603	628
Std. Error	5.8		3.4	9.8	22.5
Sample Size	93		267	36	2
<b>District 115</b>					
Statistical Weeks	26	-	42	(June 21 - October 17)	
All Fish					
Avg. Length	586		600	615	639
Std. Error	4.5		3.2	7.7	25.1
Sample Size	130		332	66	7

Table 40. Age composition and average length (mm) of coho salmon caught in the Canadian inriver gillnet fishery on the Taku River, 1987.

	Brood Year and Age Class			Total
	1984	1983	1982	
	1.1	2.1	3.1	
Statistical Weeks	28	- 38	(July 5 Sept. 19)	
Male				
Sample Number	84	197	6	287
Percent	18.3	42.8	1.3	62.4
Std. Error	1.7	2.2	0.5	2.2
Number	1022	2398	73	3493
Avg. Length	581	590	629	
Std. Error	8.7	5.0	29.5	
Sample Size	84	197	6	
Female				
Sample Number	48	119	6	173
Percent	10.4	25.9	1.3	37.6
Std. Error	1.4	2.0	0.5	2.2
Number	584	1448	73	2106
Avg. Length	616	618	628	
Std. Error	7.1	4.9	13.5	
Sample Size	48	118	6	
All Fish				
Sample Number	132	316	12	460
Percent	28.7	68.7	2.6	100.0
Std. Error	2.0	2.1	0.7	
Number	1607	3846	146	5599
Avg. Length	593	600	629	
Std. Error	6.3	3.7	15.5	
Sample Size	132	315	12	

Table 41. Peak escapement estimates for coho salmon in Southeast Alaska, 1987.

Stream Number	Stream Name	Count	Method <sup>a</sup>	Date <sup>b</sup>	Organization
101-15-019	Tombstone River	532	(F)	10/09	ADF&G <sup>c</sup>
101-15-085	Fish Creek - Hyder	432	(F)	10/21	ADF&G
101-29-006	Vallenar Creek	108	(F)	10/08	ADF&G
101-30-030	Keta River	800	(H)	10/09	ADF&G
101-30-060	Marten River	740	(H)	10/09	ADF&G
101-30-075	Sockeye Creek - Hugh Smith Lake	723	(W)	10/21	ADF&G
101-30-083	Humpback Creek	650	(F)	10/25	ADF&G
101-45-024	White River	40	(F)	10/14	ADF&G
101-45-078	Carroll Creek	180	(F)	10/29	ADF&G
101-47-015	Ward Creek	56	(F)	10/24	ADF&G
101-55-020	Wilson River	350	(H)	10/09	ADF&G
101-55-040	Blossom River	700	(H)	10/09	ADF&G
101-71-028	Walker Creek	160	(F)	10/23	ADF&G
101-71-041	Indian Creek	34	(F)	10/29	ADF&G
101-75-005	Herman Creek	92	(F)	11/04	ADF&G
101-75-015	Eulachon River	154	(F)	10/29	ADF&G
101-80-070	Hatchery Creek - Yes Bay	450	(F)	12/01	ADF&G
101-90-029	Traitors Cove Creek	73	(F)	10/22	ADF&G
101-90-050	Naha River	696	(W)	09/17	ADF&G
102-40-060	Lagoon Creek	289	(F)	10/23	ADF&G
102-60-087	Karta River	1,337	(W)	09/24	ADF&G
103-60-047	Klawock River Hatchery	11,281	(W)	11/30	ADF&G
103-60-059	Port Saint Nickolas - Head	30	(F)	10/30	ADF&G
103-60-077	Trocadero Bay - Right Head	48	(F)	10/31	ADF&G
106-22-006	Flat Creek - Mossman Inlet	102	(F)	10/09	ADF&G
106-41-010	Salmon Bay Creek	1,235	(W)	10/22	ADF&G
106-42-010	Kah Sheets Creek	200	(A)	08/28	ADF&G
107-40-025	Oerns Creek	80	(H)	10/08	ADF&G
107-40-049	Harding River	70	(H)	11/18	ADF&G
107-40-051	White River - Bradford Canal	272	(H)	11/18	ADF&G
107-40-053	Bradford River - East Fork	160	(H)	11/18	ADF&G
108-40-014	Ketili Creek - Barnes	690	(H)	11/07	ADF&G
108-40-016	Kikahe River	142	(H)	10/22	ADF&G
108-40-018	Shuktusa Branch	115	(H)	10/22	ADF&G
108-40-020	Andrews Creek	275	(H)	10/22	ADF&G
108-40-040	Blind Slough - Sumner Straits	48	(F)	9/23	ADF&G
108-40-050	Ohmer Creek	49	(F)	9/23	ADF&G
108-40-13A	West of Hot Springs	83	(H)	10/22	ADF&G
108-50-003	Bear Creek - Frederick Sound	26	(F)	10/07	ADF&G
111-12-005	Pleasant Bay Creek	136	(W)	09/22	ADF&G
111-32-038	Sockeye Creek - Taku River	1,040	(H)	10/09	ADF&G
111-32-056	Fish Creek - Taku River	250	(H)	11/02	ADF&G
111-32-066	Yehring Creek - Taku River	1,627	(P)	11/12	ADF&G
111-32-068	Johnson Creek - Taku River	150	(F)	09/23	ADF&G
111-32-203	Wilms Creek - Taku River - Canada	2,250	(H)	11/04	ADF&G
111-32-255	Tatsamenie River - Taku - Canada	173	(W)	09/26	Canada <sup>d</sup>
111-32-260	Hackett River - Taku - Canada	1,715	(W)	10/13	Canada
111-32-270	Nahlin River - Taku - Canada	156	(H)	09/15	ADF&G
111-32-280	Dudidontu River - Taku - Canada	252	(H)	09/15	ADF&G

-Continued-

Table 41. (Page 2 of 2)

Stream Number	Stream Name	Count	Method <sup>a</sup>	Date <sup>b</sup>	Organization
111-35-007	Crescent Lake - Outlet	33	(W)	08/28	ADF&G
111-40-007	Switzer Creek	48	(F)	10/07	ADF&G
111-40-028	Sheep Creek	128	(F)	10/14	ADF&G
111-41-005	Admiralty Creek	60	(F)	08/13	ADF&G
111-50-010	Peterson Creek - Favor Cove	204	(F)	10/07	ADF&G
111-50-042	Auke Creek	662 <sup>e</sup>	(W)	10/30	NMFS <sup>f</sup>
111-50-052	Montana Creek	314	(F)	10/08	ADF&G
111-50-062	Jordon Creek	251	(F)	10/22	ADF&G
111-50-075	Peterson Creek - Douglas Island	27	(F)	10/09	ADF&G
111-50-092	Barlow Cove - West Shore	40	(F)	08/27	ADF&G
112-67-035	Hasselborg River	1,300	(A)	09/02	ADF&G
112-80-028	Chaik Bay Creek	486	(F)	10/08	ADF&G
113-22-028	Port Banks	250	(A)	08/10	ADF&G
113-36-000	Sheldon Jackson College Hatchery	903	(W)	11/19	SJC <sup>g</sup>
113-41-015	Starrigaven Creek	36	(F)	10/09	ADF&G
113-41-019	Indian River - Sitka	53	(F)	10/21	SJC
113-41-032	Salmon Lake Stream - Baranof	837	(P)	10/06	ADF&G
113-41-042	Kizhuchia Creek - Redoubt Bay	40	(F)	09/23	ADF&G
113-41-043	Redoubt Lake	381	(W)	08/20	ADF&G
113-43-002	Nakwasina River	47	(F)	10/30	ADF&G
113-58-002	Hoonah Sound - North Arm West	53	(F)	10/09	ADF&G
113-62-005	Krestof Sound - Sukoi South 2	167	(F)	09/24	ADF&G
113-73-003	Ford Arm Lake Stream	1,694	(W)	10/31	ADF&G
113-81-011	Black River	262	(H)	10/09	ADF&G
115-20-010	Berners River	3,260	(F)	10/27	ADF&G
115-32-030	Takhin River	130	(A)	11/13	ADF&G
115-32-034	Chilkat Lake - Outlet	938	(W)	11/20	ADF&G
115-32-040	Spring Creek - Little Salmon River	86	(F)	10/22	ADF&G
115-32-045	Little Salmon River	70	(A)	10/16	ADF&G
115-32-057	31 Mile Creek	51	(F)	10/28	ADF&G
115-32-064	Kelsall River	184	(F)	11/05	ADF&G
115-32-068	Tahini River	696	(F)	10/14	ADF&G
115-33-020	Chilkoot Lake Outlet	641	(P)	11/03	ADF&G

<sup>a</sup> Abbreviations for types of surveys are as follows: (A) aerial - fixed wing, (B) boat, (F) foot, (H) helicopter, (P) population estimate, and (W) weir. Only those surveys in which more than 25 coho salmon were counted, including jacks, are presented.

<sup>b</sup> Date of survey or last day of weir operation.

<sup>c</sup> Alaska Department of Fish and Game.

<sup>d</sup> Canadian Department of Fisheries and Oceans.

<sup>e</sup> All were wild stock.

<sup>f</sup> National Marine Fisheries Service

<sup>g</sup> Sheldon Jackson College: all but 70 coho were sold for cost recovery.

Table 42. Coho salmon escapements to index systems in Southeast Alaska, 1974 through 1987.

System	1987 Escapement	Year	Past Escapements No. of Adults
Auke Lake	662	1977	908
		1978	683
		1979	596
		1980	698
		1981	644
		1982	447
		1983	694
		1984	651
		1985	942
		1986	540
		Average	<u>680</u>
Berners River	3,260	1974	4,121
		1975	4,342
		1976	1,820
		1978	3,108
		1979	3,460
		1982	7,505
		1983	9,840
		1984	2,825
		1985	6,169
		1986	1,752
		Average	<u>4,494</u>
Ford Arm Lake	1,694	1982	2,662
		1983	1,944
		1985	2,324
		1986	1,546
		Average	<u>2,119</u>
Salmon Lake	837	1983	403
		1984	1,514
		1985	1,388
		1986	616
		Average	<u>1,036</u>
Hugh Smith Lake	723	1982	2,144
		1983	1,490
		1984	1,408
		1985	903
		1986	1,783
		Average	<u>1,546</u>

Table 43. Run timing of coho salmon through weirs in Southeast Alaska, 1987.

System	Dates of Operation	Cummlative Percent Past Weir <sup>a</sup>			Mean Date <sup>b</sup>	Variance <sup>c</sup>
		10%	50%	90%		
Hugh Smith Lake	03 Aug - 21 Oct	02 Sep	29 Sep	12 Oct	23 Sep	25.1
Hugh Smith Jacks	03 Aug - 21 Oct	13 Sep	20 Sep	21 Sep	19 Sep	477.0
Klawock River	28 Aug - 30 Nov	09 Sep	23 Sep	11 Nov	30 Sep	511.7
Salmon Bay	01 Sep - 22 Oct	10 Sep	24 Sep	08 Oct	23 Sep	116.2
Salmon Bay Jacks	01 Sep - 22 Oct	10 Sep	15 Sep	26 Sep	18 Sep	74.4
Hackett River - Canada	23 Aug - 13 Oct	12 Sep	21 Sep	04 Oct	23 Sep	96.2
Auke Creek - Planted	29 Aug - 20 Oct	17 Sep	01 Oct	07 Oct	29 Sep	74.8
Auke Creek Jacks - Planted	29 Aug - 20 Oct	12 Sep	15 Sep	05 Oct	19 Sep	108.8
Auke Creek - Wild	29 Aug - 20 Oct	29 Sep	06 Oct	12 Oct	07 Sep	14.1
Salmon Lake <sup>d</sup>	15 Aug - 04 Oct	11 Sep	28 Sep	02 Oct	25 Sep	84.9
Salmon Lake Jacks	15 Aug - 04 Oct	05 Sep	19 Sep	28 Sep	21 Sep	64.6
Ford Arm Lake	11 Aug - 31 Oct	03 Sep	11 Sep	15 Oct	19 Sep	356.7
Ford Arm Lake Jacks	11 Aug - 31 Oct	03 Sep	13 Sep	24 Oct	23 Sep	247.8
Chilkat Lake	17 Sep - 20 Nov	23 Sep	30 Oct	14 Nov	24 Oct	404.1
Chilkoot Lake	19 Sep - 02 Nov	19 Sep	29 Sep	27 Oct	07 Oct	247.1

<sup>a</sup> Dates were interpolated when necessary.

<sup>b</sup> Rounded to the nearest date.

<sup>c</sup> Days squared.

<sup>d</sup> Weir washed out the night of 04 October.

Table 44. Age composition of coho salmon in escapements to Southeast Alaska, 1987.

Brood Year and Age Class												

-Continued-

Table 44. (Page 2 of 11)

Brood Year and Age Class												

-Continued-

Table 44. (Page 3 of 11)

Brood Year and Age Class												
	1985	1984		1983		1982		1981		1980		
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1	Total
White River - Sport Rod												
101-45-024												
Male												
Sample Number	1	3	2		1	1						8
Percent	12.5	37.5	25.0		12.5	12.5						100.0
Std. Error												0.0
Female												
Sample Number												0
Percent												0.0
Std. Error												0.0
All Fish												
Sample Number	1	3	2		1	1						8
Percent	12.5	37.5	25.0		12.5	12.5						100.0
Std. Error												
Carroll River - Sport Rod												
101-45-078												
Male												
Sample Number		5		1								6
Percent		62.5		12.5								75.0
Std. Error												0.0
Female												
Sample Number				1		1						2
Percent				12.5		12.5						25.0
Std. Error												0.0
All Fish												
Sample Number		5		2		1						8
Percent		62.5		25.0		12.5						100.0
Std. Error												
Walker Creek - Sport Rod												
101-71-028												
Male												
Sample Number		6										6
Percent		75.0										75.0
Std. Error												0.0
Female												
Sample Number		2										2
Percent		25.0										25.0
Std. Error												0.0
All Fish												
Sample Number		8										8
Percent		100.0										100.0
Std. Error												

-Continued-

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	Brood Year and Age Class											Total
	1985	1984		1983		1982		1981		1980		
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1	
Herman Creek - Sport Rod												
101-75-005												
Male												
Sample Number		1										1
Percent		100.0										100.0
Std. Error												
Female												
Sample Number												
Percent												
Std. Error												
All Fish												
Sample Number		1										1
Percent		100.0										100.0
Std. Error												
Hatchery Creek - McDonald Lake - Sport Rod												
101-80-070												
Male												
Sample Number				2		1						3
Percent				50.0		25.0						75.0
Std. Error												0.0
Female												
Sample Number				1								1
Percent				25.0								25.0
Std. Error												0.0
All Fish												
Sample Number				3		1						4
Percent				75.0		25.0						100.0
Std. Error												
Traitors River - Sport Rod												
101-90-037												
Male												
Sample Number		7										7
Percent		100.0										100.0
Std. Error												0.0
Female												
Sample Number												0
Percent												0.0
Std. Error												0.0
All Fish												
Sample Number		7										7
Percent		100.0										100.0
Std. Error												

-Continued-

Table 44. (Page 5 of 11)

Brood Year and Age Class												
	1985	1984		1983		1982		1981		1980		
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1	Total
Naha River - Weir												
101-90-050												
Male												
Sample Number		19		90		37		4				150
Percent		6.1		28.8		11.8		1.3				47.9
Std. Error												0.0
Female												
Sample Number		22		101		34		6				163
Percent		7.0		32.3		10.9		1.9				52.1
Std. Error												0.0
All Fish												
Sample Number		41		191		71		10				313
Percent		13.1		61.0		22.7		3.2				100.0
Std. Error												
Harris River - Sport Rod												
102-60-082												
Male												
Sample Number		2		2								4
Percent		40.0		40.0								80.0
Std. Error												0.0
Female												
Sample Number		1										1
Percent		20.0										20.0
Std. Error												0.0
All Fish												
Sample Number		3		2								5
Percent		60.0		40.0								100.0
Std. Error												
Karta River - Weir												
102-60-087												
Male												
Sample Number		171		168		21						360
Percent		28.6		28.1		3.5						60.2
Std. Error		0.1		0.1		0.0						0.1
Female												
Sample Number		81		144		12		1				238
Percent		13.5		24.1		2.0		0.2				39.8
Std. Error		0.1		0.1		0.0		0.0				0.1
All Fish												
Sample Number		252		313		33		1				599
Percent		42.1		52.3		5.5		0.2				100.0
Std. Error												

-Continued-

Table 44. (Page 6 of 11)

Brood Year and Age Class												
	1985	1984		1983		1982		1981		1980		Total
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1	
Klawock River Hatchery - Weir												
103-60-047												
Male												
Sample Number		72	1	15				1				89
Percent		45.0	0.6	9.4				0.6				55.6
Std. Error		3.1		1.8								3.1
Female												
Sample Number		57		13		1						71
Percent		35.6		8.1		0.6						44.4
Std. Error		3.0		1.7								3.1
All Fish												
Sample Number		354	1	50		2		1				408
Percent		86.8	0.2	12.3		0.5		0.2				100.0
Std. Error												
Port St. Nickolas - Sport Rod												
103-60-059												
Male												
Sample Number	1		3	3	1							8
Percent	11.1		33.3	33.3	11.1							88.9
Std. Error												0.0
Female												
Sample Number				1								1
Percent				11.1								11.1
Std. Error												0.0
All Fish												
Sample Number	1		3	4	1							9
Percent	11.1		33.3	44.4	11.1							100.0
Std. Error												
Cable Creek - Sport Rod												
103-60-077												
Male												
Sample Number		1	1	5		1						8
Percent		12.5	12.5	62.5		12.5						100.0
Std. Error												0.0
Female												
Sample Number												0
Percent												0.0
Std. Error												0.0
All Fish												
Sample Number		1	1	5		1						8
Percent		12.5	12.5	62.5		12.5						100.0
Std. Error												

-Continued-

Table 44. (Page 7 of 11)

Brood Year and Age Class												Total
1985	1984		1983		1982		1981		1980			
1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1		
Staney Creek - Sport Rod												
103-90-030												
Male												
Sample Number		1									1	
Percent		50.0									50.0	
Std. Error											0.0	
Female												
Sample Number							1				1	
Percent							50.0				50.0	
Std. Error											0.0	
All Fish												
Sample Number		1					1				2	
Percent		50.0					50.0				100.0	
Std. Error												
Salmon Bay Lake - Weir												
106-41-010												
Male												
Sample Number		18	7	140	6	67	2	19			259	
Percent		3.4	1.3	26.4	1.1	12.6	0.4	3.6			48.8	
Std. Error											0.0	
Female												
Sample Number		16		129	1	107		19			272	
Percent		3.0		24.3	0.2	20.2		3.6			51.2	
Std. Error											0.0	
All Fish												
Sample Number		34	7	269	7	174	2	38			531	
Percent		6.4	1.3	50.7	1.3	32.8	0.4	7.2			100.0	
Std. Error												
Crystal Lake Hatchery - Weir												
106-44-031												
Male												
Sample Number		55									55	
Percent		50.5									50.5	
Std. Error											0.0	
Female												
Sample Number		53		1							54	
Percent		48.6		0.9							49.5	
Std. Error											0.0	
All Fish												
Sample Number		108		1							109	
Percent		99.1		0.9							100.0	
Std. Error												

-Continued-

Table 44. (Page 8 of 11)

Brood Year and Age Class												
	1985	1984		1983		1982		1981		1980		
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1	Total
Mist Cove - N.S.R.A.A. - Cost Recovery												
109-10-019												
Male												
Sample Number		36										36
Percent		37.1										37.1
Std. Error												0.0
Female												
Sample Number		59		2								61
Percent		60.8		2.1								62.9
Std. Error												0.0
All Fish												
Sample Number		95		2								97
Percent		97.9		2.1								100.0
Std. Error												
Taku River - Fish Wheel												
111-32-032												
Male												
Sample Number		343	4	648		24	0.1		0.1			1021
Percent		20.6	0.2	38.9		1.4	0.1		0.1			61.3
Std. Error		0.1	0.0	0.2		0.0						0.2
Female												
Sample Number	0.1	200		430		14						645
Percent	0.1	12.0		25.8		0.8						38.7
Std. Error		0.1		0.2		0.0						0.2
All Fish												
Sample Number	0.1	549	4	1105		39	0.1		0.1			1700
Percent	0.1	32.3	0.2	65.0		2.3	0.1		0.1			100.0
Std. Error		0.0	0.0	0.0		0.0						
Snettisham Hatchery - Weir												
111-33-000												
Male												
Sample Number		38		1		1						40
Percent		48.1		1.3		1.3						50.6
Std. Error												0.0
Female												
Sample Number		35		4								39
Percent		44.3		5.1								49.4
Std. Error												0.0
All Fish												
Sample Number		73		5		1						79
Percent		92.4		6.3		1.3						100.0
Std. Error												

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Table 44. (Page 9 of 11)

Brood Year and Age Class												

-Continued-

Table 44. (Page 10 of 11)

Brood Year and Age Class												
	1985	1984		1983		1982		1981		1980		
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1	Total
Salmon Lake - Weir												
113-41-032												
Male												
Sample Number		16	5	47	4	24	2	2				100
Percent		9.6	3.0	28.3	2.4	14.5	1.2	1.2				60.2
Std. Error		0.2	0.1	0.3	0.1	0.2	0.1	0.1				0.3
Female												
Sample Number		14	1	31		17		3				66
Percent		8.4	0.6	18.7		10.2		1.8				39.8
Std. Error		0.2		0.2		0.2		0.1				0.3
All Fish												
Sample Number		30	6	78	4	41	2	6				167
Percent		18.0	3.6	46.7	2.4	24.6	1.2	3.6				100.0
Std. Error												
Redoubt Lake - Weir												
113-41-043												
Male												
Sample Number		3		11		5						19
Percent		9.7		35.5		16.1						61.3
Std. Error												0.0
Female												
Sample Number		1		7		3		1				12
Percent		3.2		22.6		9.7		3.2				38.7
Std. Error												0.0
All Fish												
Sample Number		4		18		8		1				31
Percent		12.9		58.1		25.8		3.2				100.0
Std. Error												
Ford Arm Lake - Weir												
113-73-003												
Male												
Sample Number		11	18	97	25	123	7	17				298
Percent		2.0	3.3	17.6	4.5	22.3	1.3	3.1				54.1
Std. Error												0.0
Female												
Sample Number		12		81		147	1	11			1	253
Percent		2.2		14.7		26.7	0.2	2.0			0.2	45.9
Std. Error												0.0
All Fish												
Sample Number		23	18	178	25	270	8	28			1	551
Percent		4.2	3.3	32.3	4.5	49.0	1.5	5.1			0.2	100.0
Std. Error												

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Table 44. (Page 11 of 11)

Brood Year and Age Class												Total
1985	1984		1983		1982		1981		1980			
1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1		
Berners River - Beach Seine												
115-20-010												
Male												
Sample Number		35		273		7						315
Percent		6.3		49.1		1.3						56.7
Std. Error												0.0
Female												
Sample Number		32		205		4						241
Percent		5.8		36.9		0.7						43.3
Std. Error												0.0
All Fish												
Sample Number		67		478		11						556
Percent		12.1		86.0		2.0						100.0
Std. Error												

Table 45. Average length (mm) and standard error, by sex and age, of coho salmon sampled from escapements in Southeast Alaska, 1987.

Brood Year and Age Class											
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Table 45. (Page 2 of 11)

Brood Year and Age Class											
	1985	1984		1983		1982		1981		1980	
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1
Hugh Smith Lake - Weir											
101-30-075											
Male											
Avg. Length		634	362	643	370	655		663			
Std. Error		14.4	11.9	4.9		7.5		28.5			
Sample Size		16	10	114	1	43		3			
Female											
Avg. Length		606		657		673		640		620	
Std. Error		23.8		4.1		3.8		32.1			
Sample Size		10		138		60		3		1	
All Fish											
Avg. Length		623	362	651	370	665		652		620	
Std. Error		12.8	11.9	3.2		3.9		19.9			
Sample Size		26	10	252	1	103		6		1	
Humpback Creek - Sport Rod											
101-30-083											
Male											
Avg. Length				613							
Std. Error				47.0							
Sample Size				3							
Female											
Avg. Length		700		700							
Std. Error				40.0							
Sample Size		1		2							
All Fish											
Avg. Length		700		648							
Std. Error				35.7							
Sample Size		1		5							
Whitman Lake Hatchery - Weir											
101-40-000											
Male											
Avg. Length		652									
Std. Error		7.4									
Sample Size		33									
Female											
Avg. Length		647									
Std. Error		4.2									
Sample Size		63									
All Fish											
Avg. Length		649									
Std. Error		3.7									
Sample Size		96									

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Table 45. (Page 3 of 11)

Brood Year and Age Class											
	1985	1984		1983		1982		1981		1980	
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1
White River - Sport Rod											
101-45-024											
Male											
Avg. Length	270	553	280		300	680					
Std. Error		52.0									
Sample Size	1	3	2		1	1					
Female											
Avg. Length											
Std. Error											
Sample Size											
All Fish											
Avg. Length	270	553	280		300	680					
Std. Error		52.0									
Sample Size	1	3	2		1	1					
Carroll River - Sport Rod											
101-45-078											
Male											
Avg. Length		574		690							
Std. Error		12.1									
Sample Size		5		1							
Female											
Avg. Length				600		610					
Std. Error											
Sample Size				1		1					
All Fish											
Avg. Length		574		645		610					
Std. Error		12.1		45.0							
Sample Size		5		2		1					
Walker Creek - Sport Rod											
101-71-028											
Male											
Avg. Length		569									
Std. Error		38.6									
Sample Size		6									
Female											
Avg. Length		635									
Std. Error											
Sample Size		2									
All Fish											
Avg. Length		586									
Std. Error		30.2									
Sample Size		8									

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Table 45. (Page 4 of 11)

Brood Year and Age Class												
		1985	1984		1983		1982		1981		1980	
		1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1
Herman Creek - Sport Rod												
101-75-005												
Male												
Ave. Length					560							
Std. Error												
Sample Size					1							
Female												
Ave. Length												
Std. Error												
Sample Size												
All Fish												
Ave. Length					560							
Std. Error												
Sample Size					1							
Hatchery Creek - McDonald Lake - Sport Rod												
101-80-070												
Male												
Avg. Length					705		650					
Std. Error					15.0							
Sample Size					2		1					
Female												
Avg. Length					700							
Std. Error												
Sample Size					1							
All Fish												
Avg. Length					703		650					
Std. Error					8.8							
Sample Size					3		1					
Traitors River - Sport Rod												
101-90-037												
Male												
Avg. Length			491									
Std. Error			21.9									
Sample Size			7									
Female												
Avg. Length												
Std. Error												
Sample Size												
All Fish												
Avg. Length			491									
Std. Error			21.9									
Sample Size			7									

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Table 45. (Page 5 of 11)

Brood Year and Age Class											

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Table 45. (Page 6 of 11)

Brood Year and Age Class											
	1985	1984		1983		1982		1981		1980	
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1
Klawock Lake Hatchery - Weir											
103-60-047											
Male											
Avg. Length		551	220	542				540			
Std. Error		9.1		18.3							
Sample Size		72	1	15				1			
Female											
Avg. Length		612		604		575					
Std. Error		5.6		9.1							
Sample Size		57		13		1					
All Fish											
Avg. Length		604	220	588		630		540			
Std. Error		3.4		9.0		55.0					
Sample Size		334	1	50		2		1			
Port St. Nickolas - Sport Rod											
103-60-059											
Male											
Avg. Length	280		302	615	310						
Std. Error			8.3	44.4							
Sample Size	1		3	3	1						
Female											
Avg. Length				620							
Std. Error											
Sample Size				1							
All Fish											
Avg. Length	280		302	616	310						
Std. Error			8.3	31.4							
Sample Size	1		3	4	1						
Cable Creek - Sport Rod											
103-60-077											
Male											
Avg. Length	450		285	572		525					
Std. Error				24.9							
Sample Size	1		1	5		1					
Female											
Avg. Length											
Std. Error											
Sample Size											
All Fish											
Avg. Length	450		285	572		525					
Std. Error				24.9							
Sample Size	1		1	5		1					

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Table 45. (Page 7 of 11)

Brood Year and Age Class											

-Continued-

Table 45. (Page 8 of 11)

Brood Year and Age Class											
	1985	1984		1983		1982		1981		1980	
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1
Mist Cove - N.S.R.A.A. - Cost Recovery											
109-10-019											
Male											
Avg. Length		523									
Std. Error		6.5									
Sample Size		36									
Female											
Avg. Length		622		590							
Std. Error		4.2		20.0							
Sample Size		59		2							
All Fish											
Avg. Length		584		590							
Std. Error		6.1		20.0							
Sample Size		95		2							
Taku River - Fish Wheel											
111-32-032											
Male											
Avg. Length		559	303	582	600	571	365			310	
Std. Error		4.8	31.0	3.4		16.8					
Sample Size		331	4	627	1	22	1			1	
Female											
Avg. Length	330	595		613		599					
Std. Error		5.1		2.9		15.5					
Sample Size	1	191		419		14					
All Fish											
Avg. Length	330	572	303	595	600	582	365			310	
Std. Error		3.7	31.0	2.4		12.0					
Sample Size	1	522	4	1048	1	36	1			1	
Snettisham Hatchery - Weir											
111-33-000											
Male											
Avg. Length		568		585		675					
Std. Error		10.5									
Sample Size		38		1		1					
Female											
Avg. Length		588		650							
Std. Error		7.1		35.1							
Sample Size		35		4							
All Fish											
Avg. Length		578		637		675					
Std. Error		6.5		30.2							
Sample Size		73		5		1					

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Table 45. (Page 9 of 11)

Brood Year and Age Class											
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Table 45. (Page 10 of 11)

Brood Year and Age Class											
	1985	1984		1983		1982		1981		1980	
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1
Salmon Lake - Weir											
113-41-032											
Male											
Avg. Length		587	382	610	363	625	359	566			
Std. Error		25.6	10.6	11.4	10.7	20.0	19.0	137.5			
Sample Size		16	5	47	4	24	2	2			
Female											
Avg. Length		610	314	647		659		656			
Std. Error		17.4		8.8		10.7		4.7			
Sample Size		14	1	31		17		3			
All Fish											
Avg. Length		598	371	625	363	639	359	620			
Std. Error		15.8	14.3	8.0	10.7	12.7	19.0	48.9			
Sample Size		30	6	78	4	41	2	5			
Redoubt Lake - Weir											
113-41-043											
Male											
Avg. Length		579		517		483					
Std. Error		33.7		26.9		23.8					
Sample Size		3		11		5					
Female											
Avg. Length		503		570		557		656			
Std. Error				19.7		44.2					
Sample Size		1		7		3		1			
All Fish											
Avg. Length		560		538		511		656			
Std. Error		30.5		18.8		24.4					
Sample Size		4		18		8		1			
Ford Arm Lake - Weir											
113-73-003											
Male											
Avg. Length		594	376	621	373	637	348	650			
Std. Error		15.7	4.7	6.1	6.0	5.2	5.4	10.3			
Sample Size		11	18	97	25	123	7	17			
Female											
Avg. Length		604		648		658	421	672		686	
Std. Error		10.3		3.6		3.1		9.6			
Sample Size		12		81		147	1	11		1	
All Fish											
Avg. Length		599	376	633	373	649	357	659		686	
Std. Error		9.1	4.7	3.9	6.0	3.0	10.2	7.5			
Sample Size		23	18	178	25	270	8	28		1	

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Table 45. (Page 11 of 11)

	Brood Year and Age Class									
	1985	1984		1983		1982		1981		1980
	1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2 5.1
Berners River - Beach Seine										
115-20-010										
Male										
Avg. Length		608		636		651				
Std. Error		11.4		3.4		19.9				
Sample Size		35		273		7				
Female										
Avg. Length		622		643		639				
Std. Error		9.3		2.7		17.8				
Sample Size		32		205		4				
All Fish										
Avg. Length		615		639		647				
Std. Error		7.4		2.3		13.8				
Sample Size		67		478		11				

Table 46. Comparison of coho salmon age composition from 1982 to 1987 for selected Southeast Alaska escapements.

System	Stream Number	Year	Sample Size	Percent by Age Class												Mean Freshwater Age
				1.0	1.1	2.0	2.1	3.0	3.1	4.0	4.1	5.0	4.2	5.1	6.0	
Hugh Smith Lake	101-30-075	1982	2,302		34.6	2.0	60.9		2.5							1.68
		1983	490	1.0	37.6	4.1	53.0	0.4	3.9							1.66
		1984	777		22.6	1.3	73.1		3.0							1.80
		1985	538		11.9	1.3	47.0	1.5	34.9	0.4	3.0					2.13
		1986	442		10.4	0.3	54.1	0.5	30.5		0.9					2.29
		1987	399		6.5	2.5	63.2	0.3	25.8		1.5		0.3			2.23
Taku River	111-32-032	1982	0													
		1983	123		59.3		40.7									1.41
		1984	630	0.2	43.0	0.3	56.0		0.5							1.57
		1985	826		44.3	0.1	51.2		3.9		0.4	0.1				1.61
		1986	475	1.9	42.3	0.8	52.0		2.5		0.4					1.59
		1987	1,700	0.1	32.2	0.2	65.0		2.3	0.1		0.1				1.70
Auke Lake	111-50-042	1982	447		38.9		51.7		9.4							1.70
		1983	374		30.2	0.3	66.0		3.5							1.73
		1984	494	0.6	7.5	19.2	66.0	2.6	4.0							1.99
		1985	146		4.1		47.3		39.7		8.2					2.51
		1986	263	0.4	9.4	5.6	60.3	6.0	16.7	0.4	1.3					2.16
		1987	108		13.0		56.5		26.9		3.7					2.22
Salmon Lake	113-41-032	1982														
		1983	148		8.1	13.5	61.6	4.7	11.5		0.7					2.11
		1984	457	1.3	16.8	31.3	46.4	2.0	2.0		2.0					1.85
		1985	35			2.9	2.9	25.7	11.4	42.9	2.9	11.4				3.34
		1986	263		0.4	1.9	20.2	11.8	42.2	6.1	17.5					3.01
		1987	167		18.0	3.6	46.7	2.4	24.6	1.2	3.6					2.19
Redoubt Lake	113-41-043	1982	168		45.5		51.5	1.5	1.5							1.60
		1983	446		24.7	2.9	71.5	0.2	0.7							1.77
		1984	474	1.5	16.9	11.8	67.1		2.7							1.84
		1985	45		33.3		44.4		22.2							1.69
		1986	96		24.0		70.8		4.2		1.0					2.20
		1987	31		12.9		58.1		25.8		3.2					2.20
Ford Arm Lake	113-73-003	1982	2,662		31.8	0.2	66.6		1.4							1.70
		1983	371		10.8	8.4	67.1	4.0	9.4	0.3						1.95
		1984	0													
		1985	496	0.6	3.0	0.4	22.6	3.0	39.9	7.1	16.9	3.6		2.6	0.2	3.10
		1986	486	0.2	10.5	4.5	52.3	7.2	23.0	0.2	2.1					2.24
		1987	551		4.2	3.3	32.3	4.5	49.0	1.5	5.2			0.2		2.63
Berners River	115-20-010	1982	7,505	0.3	60.1		39.0		0.6							1.40
		1983	632		39.4		60.4		0.2							1.61
		1984	0													
		1985	359		33.7		59.6		6.1		0.6					1.74
		1986	279		21.5		71.0		7.5							1.86
		1987	556		12.1		86.0		2.0							1.90

Table 47. Age composition and average length (mm) of outmigrating coho salmon smolt from Salmon Lake, (Stream No. 113-41-032), 1985 to 1987.

	Age Class and Brood Year						Total
	1.0	2.0	3.0	4.0	5.0	6.0	
<u>1985</u>							
Sampling Dates:	April 28 to May 28						
Brood Year	1984	1983	1982	1981	1980	1979	
Sample Number	8	125	61	34	11	1	240
Percent	2.0	52.1	25.4	14.2	4.6	0.4	100.0
Std. Error	1.2	3.2	2.8	2.3	1.4		
Ave. Length	83.9	96.6	111.3	133.1	152.0	143.0	
Std. Error	6.4	0.8	1.7	3.3	3.7		
<u>1986</u>							
Sampling Dates:	April 21 to May 23						
Brood Year	1985	1984	1983	1982	1981		
Sample Number	7	66	179	93	11		356
Percent	2.0	18.5	50.3	26.1	3.1		100.0
Std. Error	0.7	2.1	2.7	2.3	0.9		
Avg. Length	95.0	109.3	130.4	141.6	144.8		
Std. Error	2.1	1.7	1.0	1.0	1.9		
<u>1987</u>							
Sampling Dates:	April 15 to May 22						
Brood Year	1986	1985	1984	1983	1982		
Sample Size	4	422	230	39	2		697
Percent	0.6	60.5	33.0	5.6	0.3		100.0
Std. Error	0.3	1.9	1.8	0.9	0.2		
Ave. Length	95.0	103.5	119.0	136.6	172.0		
Std. Error	3.5	0.5	0.8	1.9	8.0		

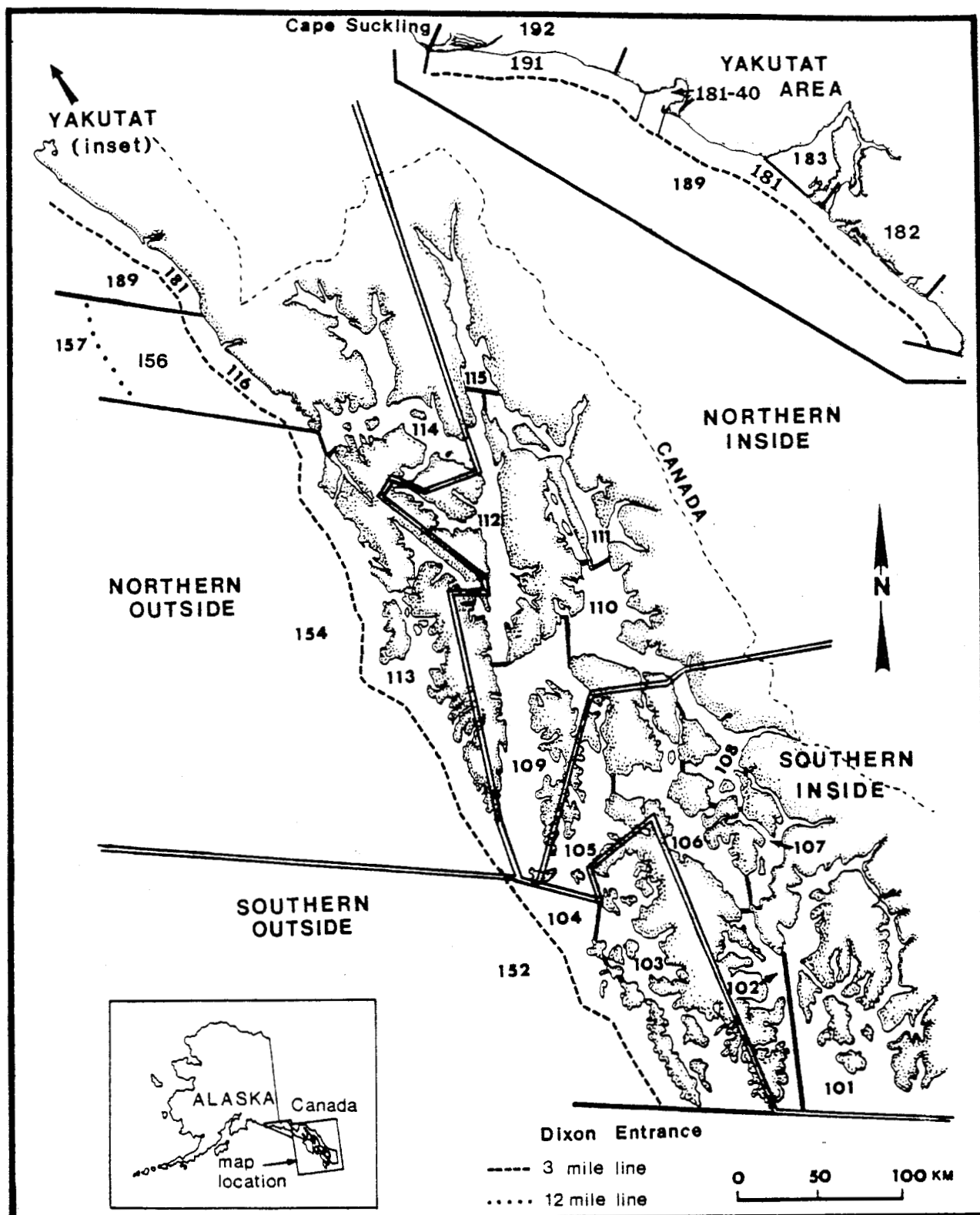


Figure 1. Map of Southeast Alaska showing the statistical fishing districts and four areas used for analysis of the troll data.

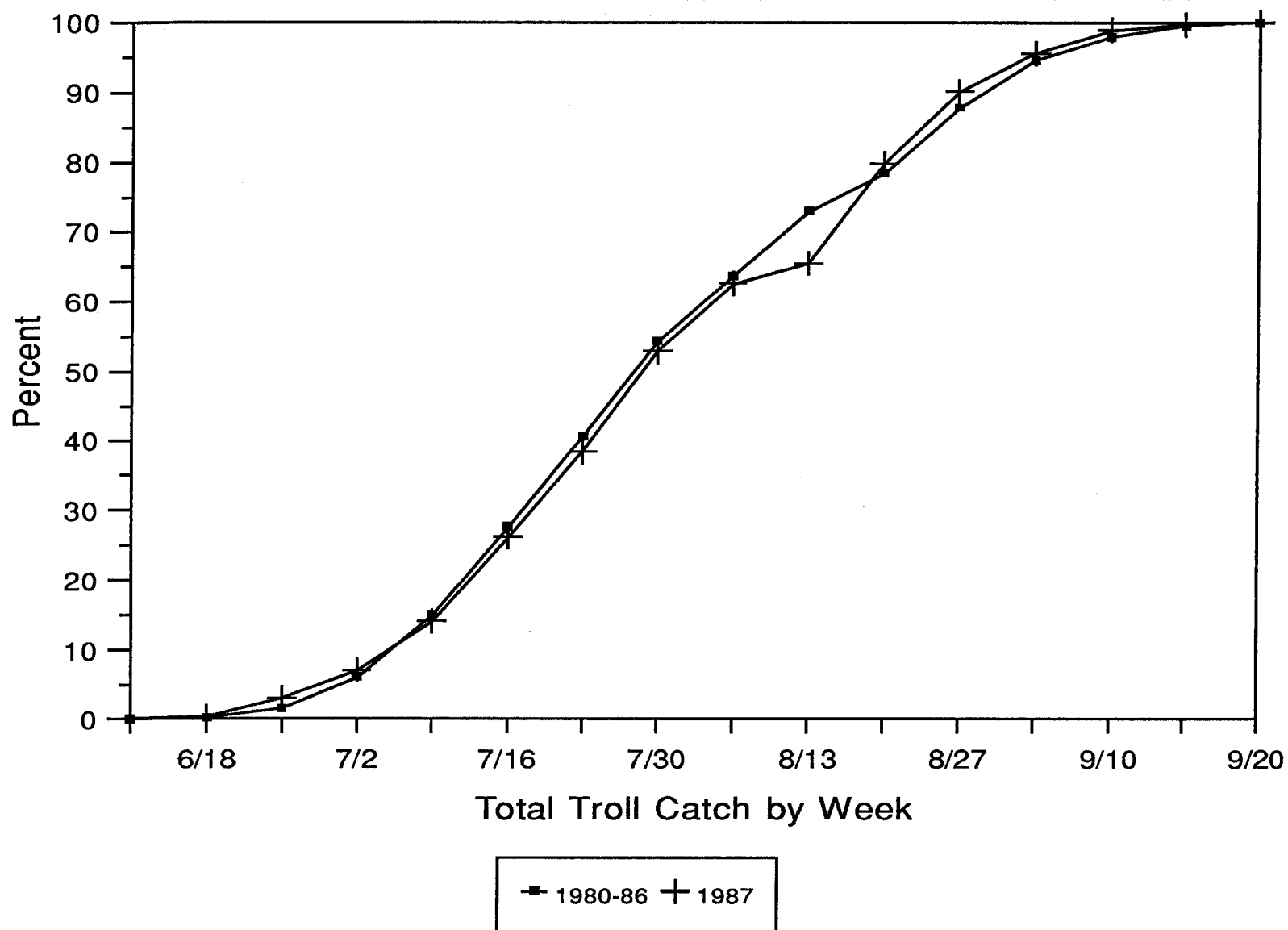


Figure 2. Percentage of total troll harvest by week in Southeast Alaska, 1987, compared to the 1980 through 1986 average.

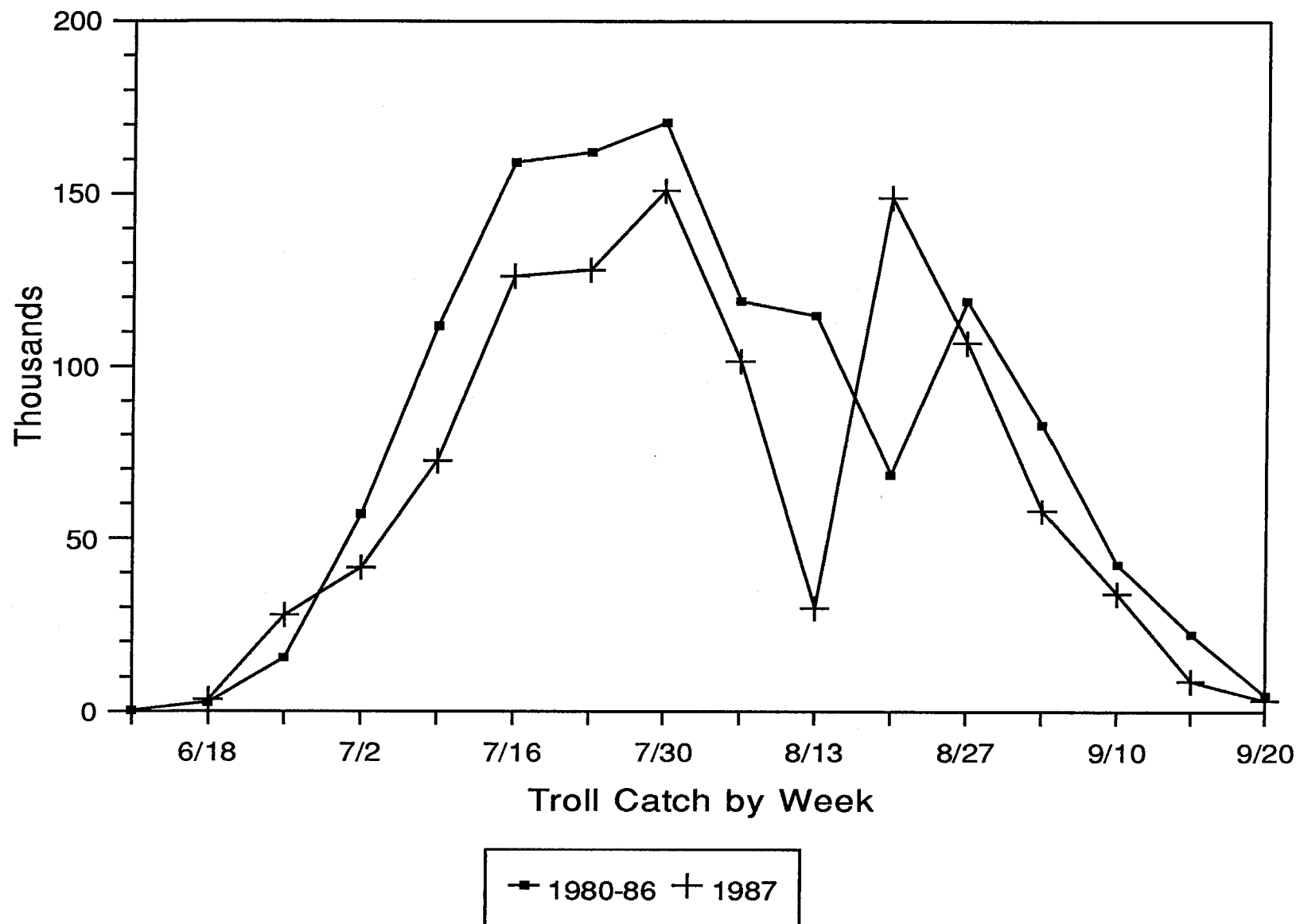


Figure 3. The 1987 troll harvest of coho salmon in Southeast Alaska by week, compared to the 1980 through 1986 average catch by week.

Summer Troll Open Dates	Inseason Troll Closure Dates	Summer Troll Closure Date
1981	1981	1981
May 15 Coho open Jun 15 All Species Jul 5-Aug 9 All Species Aug 20-Sep 2 Chinook Sep 12-20	All Species Jun 26 - Jul 4 All Species Aug 10-19 Chinook only and small areas to other species Sep 3-11  Close Coho Dist 5-10, 12, 15 Sep 3-20	Sep 21
1982	1982	1982
May 15 All Species Jun 17 All Species Aug 8-Sep 20	All Species Jun 7-16 All species Jul 29-Aug 7	Sep 21
1983	1983	1983
May 16 All Species Jul 1-Aug 4 All Species Aug 15-Sep 20	All Species Jun 9-30 All Species Aug 5-14 Chinook only and small areas Aug 15-Sep 20	Sep 21
1984	1984	1984
Jun 5 Coho open Jun 15 All Species Jul 11-Aug 14 All Species Aug 25-Sep 20	All Species Jul 1-10 Chinook only and small areas Jul 30-Sep 20 All Species Aug 15-24	Sep 21
1985	1985	1985
June 3 All Species-Chinook open 39 hours Aug 25-26	All Species Jun 13-30 Chinook only and small areas Jul 23-Aug 24 All Species Aug 15-24 Chinook only and small areas Aug 26-Sep 20	Sep 21
1986	1986	1986
Jun 20  All Species including small coho areas Aug 21-26 All Species including small coho areas Sept 1-8	Close chinook areas of high concentrations Jul 8 Chinook only and small areas Jul 16-Aug 20 Close more small areas to coho Jul 30 All Species Aug 11-20 Chinook only and small areas Aug 27-31  Chinook only and small areas Sep 9-20	Sep 21
1987	1987	1987
Jun 20 All Species Aug 1-2 All Species Aug 13-Sep 20	Close small areas to all species Jul 4 Chinook only and small areas Jul 13-31 All Species Aug 3-12 Chinook only and small areas Aug 13-Sep 20 Close Yakutat to all species Aug 29-Sep 20 Close Lynn Canal to troll Sep 14-20	Sep 21

Figure 4. Regional troll openings in Southeast Alaska for year 1981 to 1987.

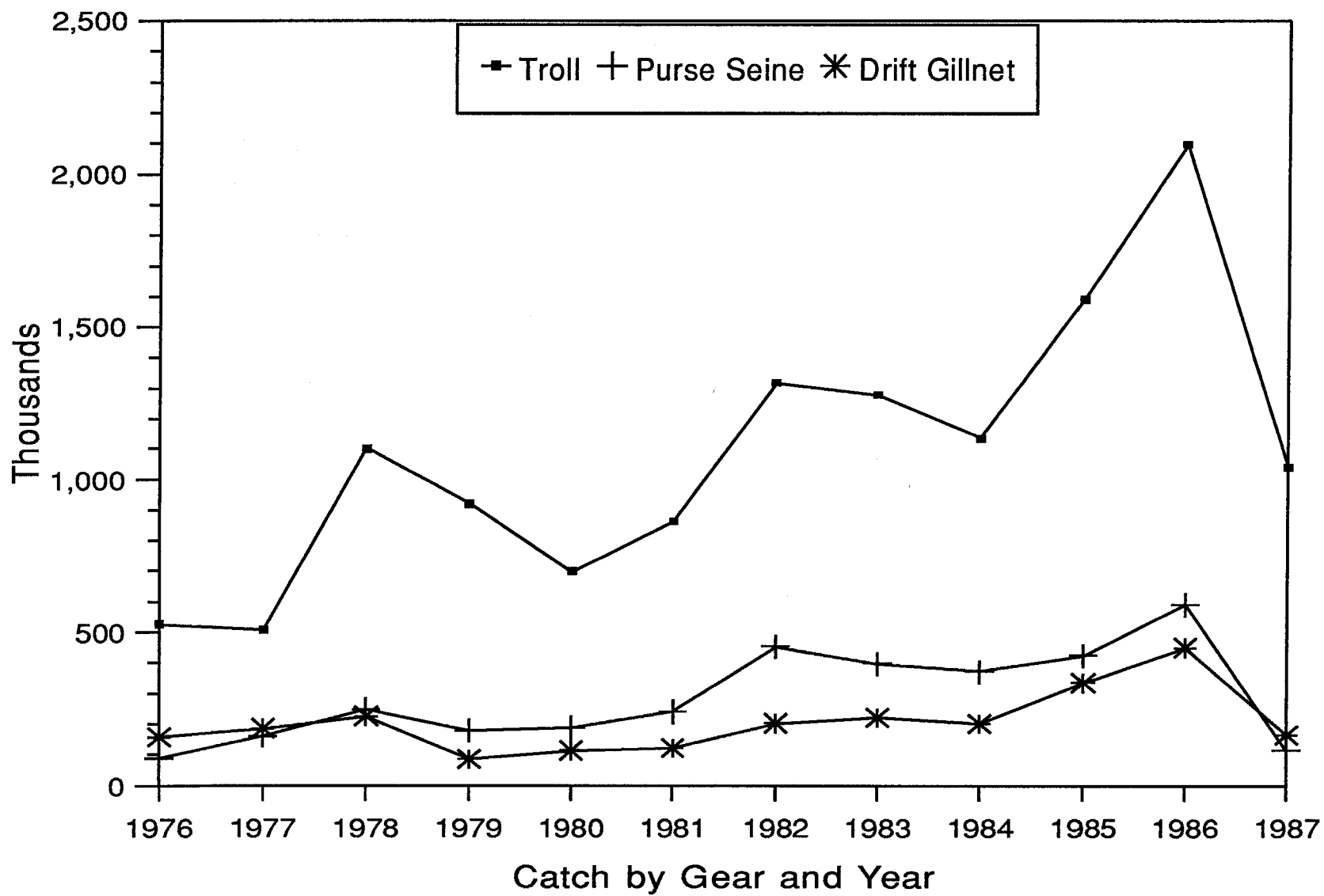


Figure 5. Total catch of coho salmon in Southeast Alaska by fishery from 1976 to 1987.

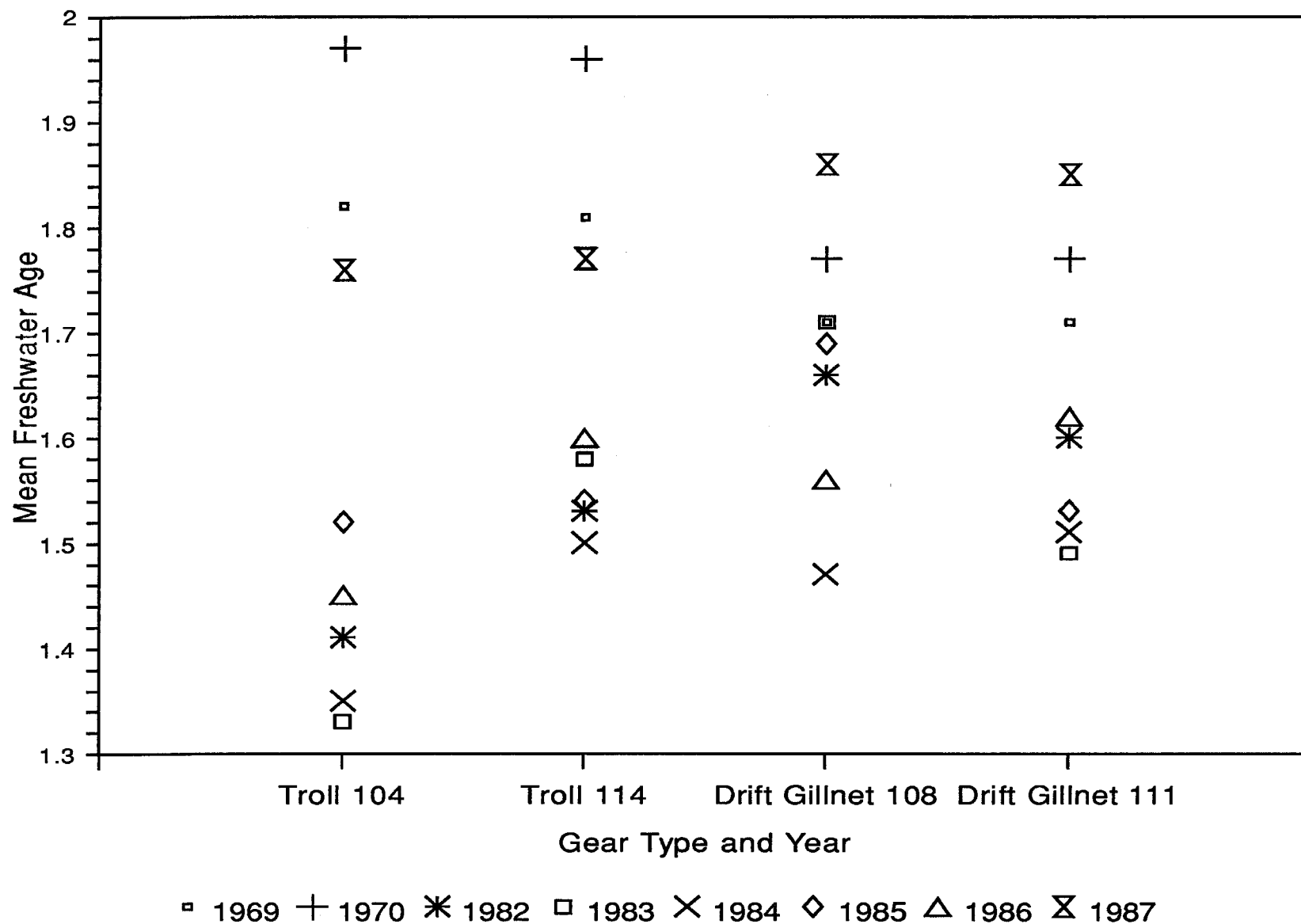


Figure 6. Mean freshwater age of coho salmon harvested in selected Southeast Alaska troll and drift gillnet fisheries for the years 1969, 1970, 1982, 1983, 1984, 1985, 1986, and 1987.

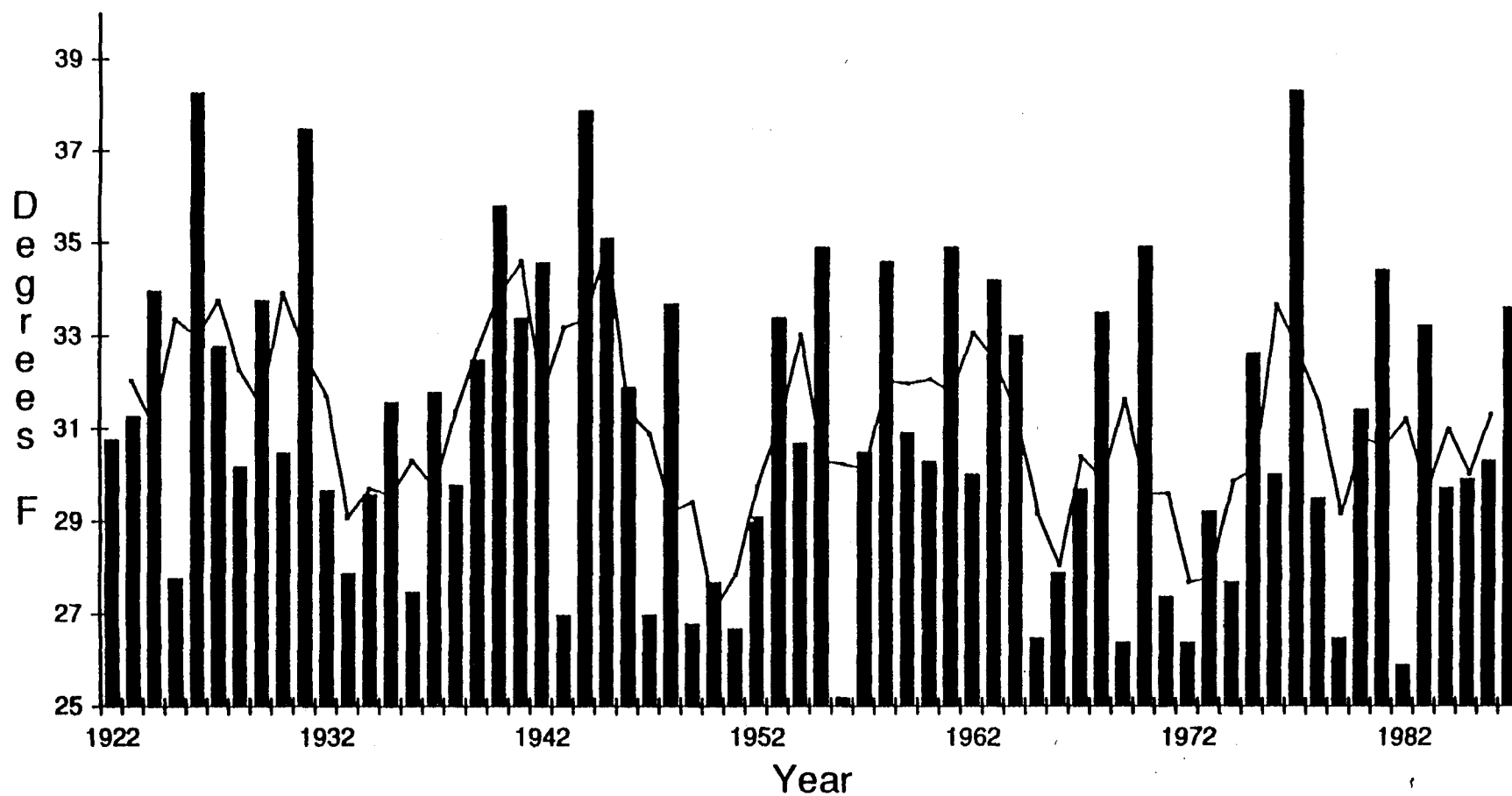


Figure 7. Average winter (November to February) air temperatures with three-year moving average (line) in Juneau, Alaska from 1922 to 1987.

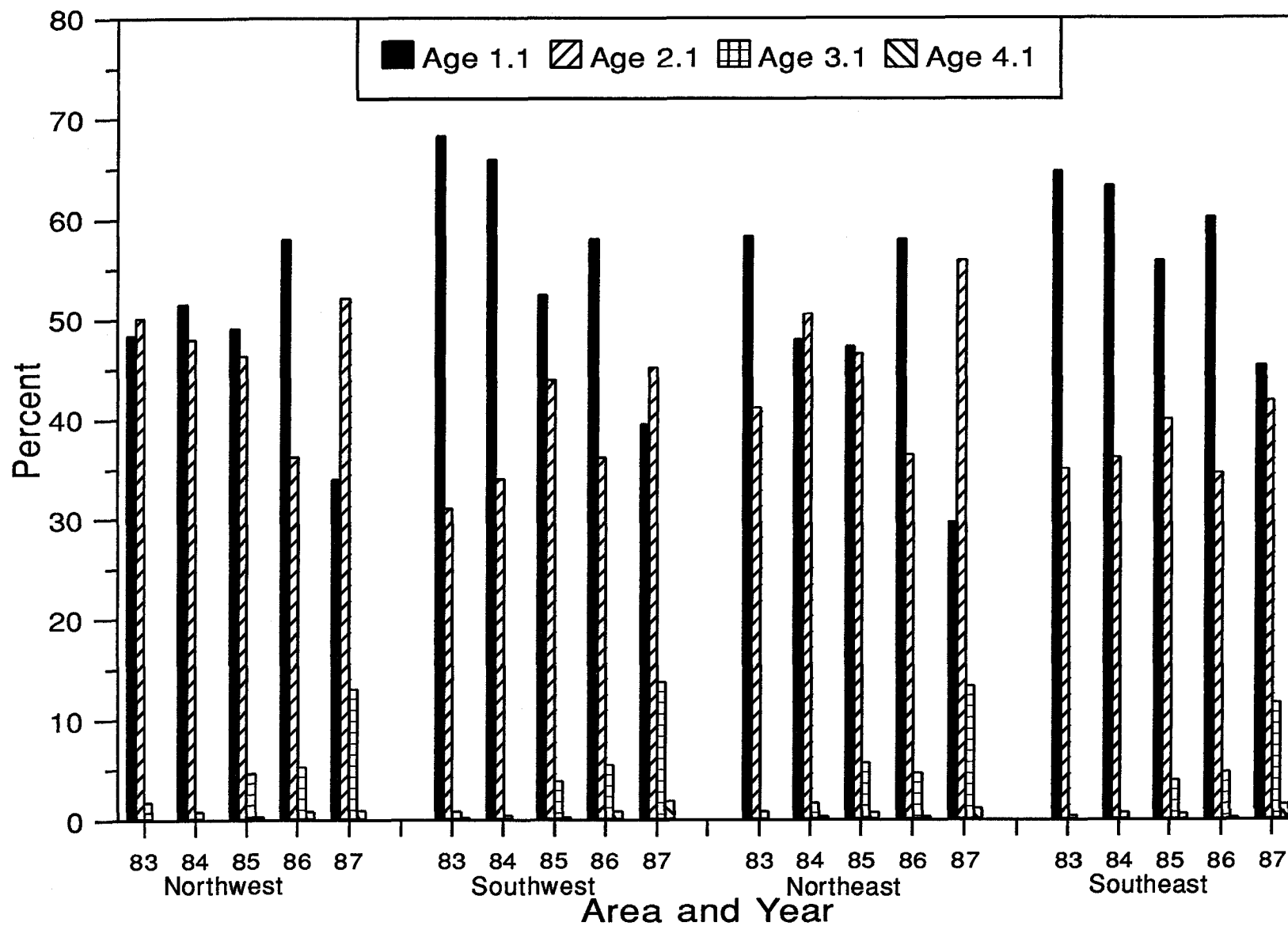


Figure 8. Age composition of the Southeast Alaska troll harvest of coho salmon by area, 1983 through 1987.

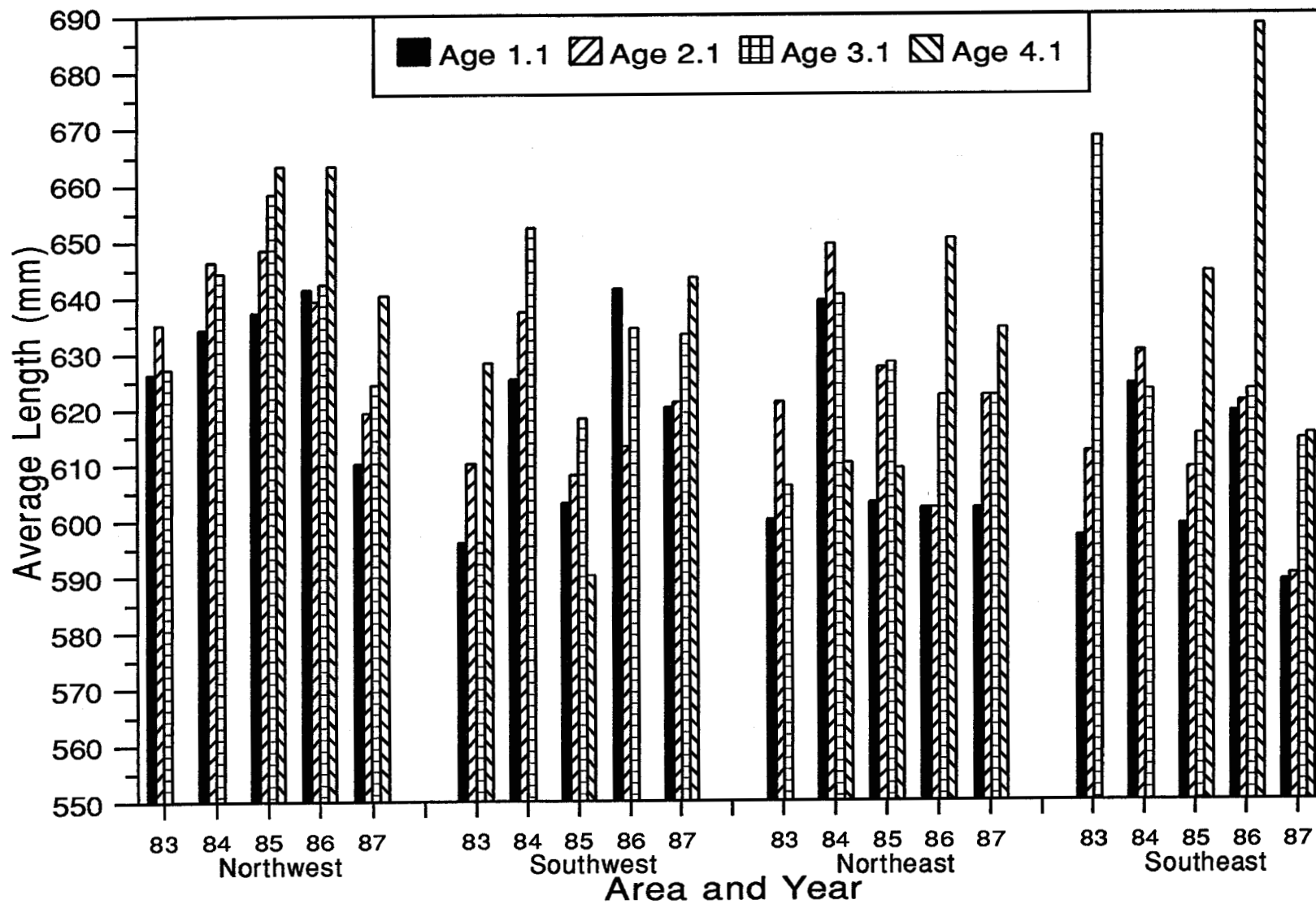


Figure 9. Average length at age for coho salmon harvested in the Southeast Alaska troll fishery by area, 1983 through 1987.

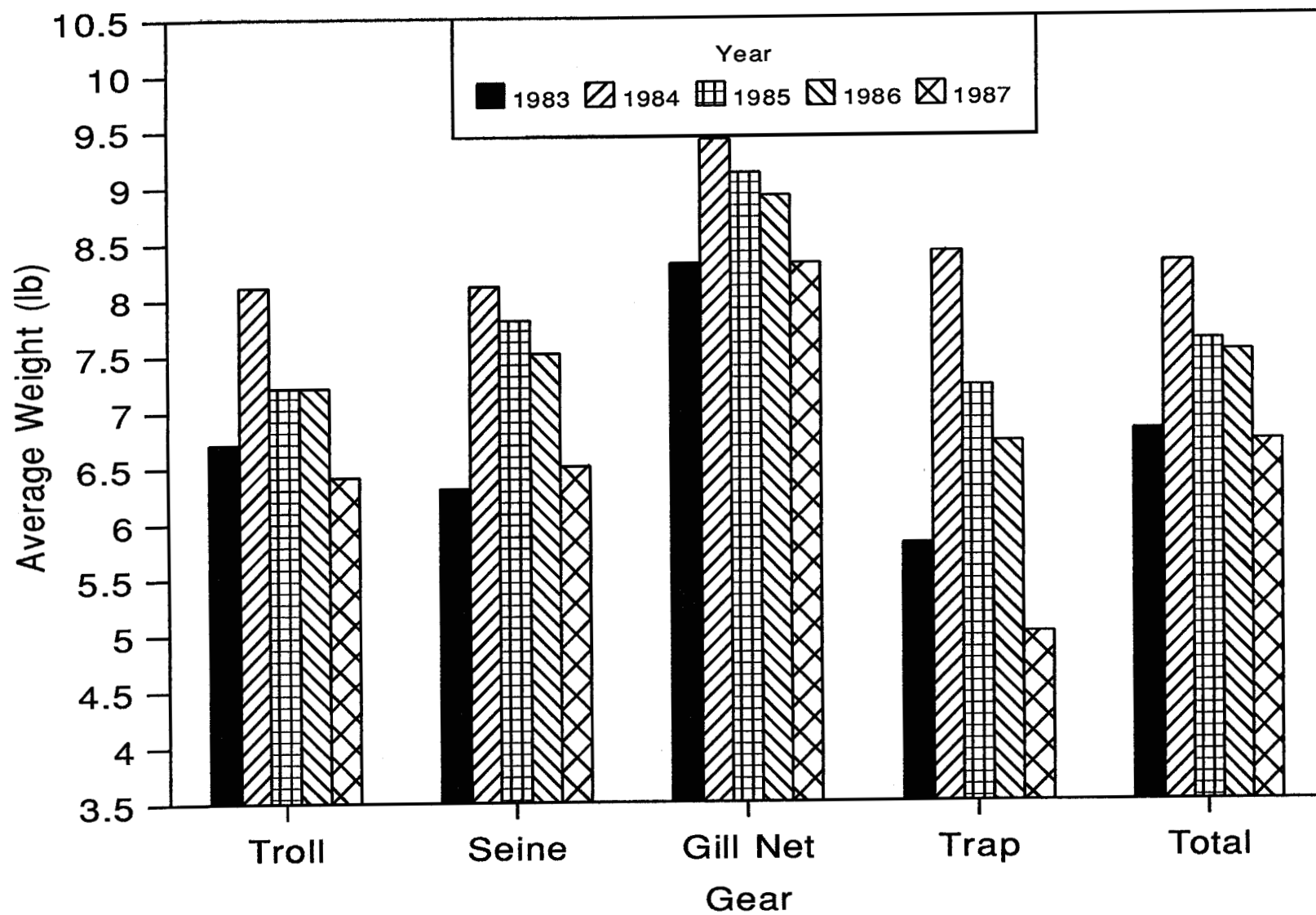


Figure 10. Average weight of coho salmon harvested in the Southeast Alaska troll, seine, drift gillnet, and trap fisheries, 1983 through 1987.

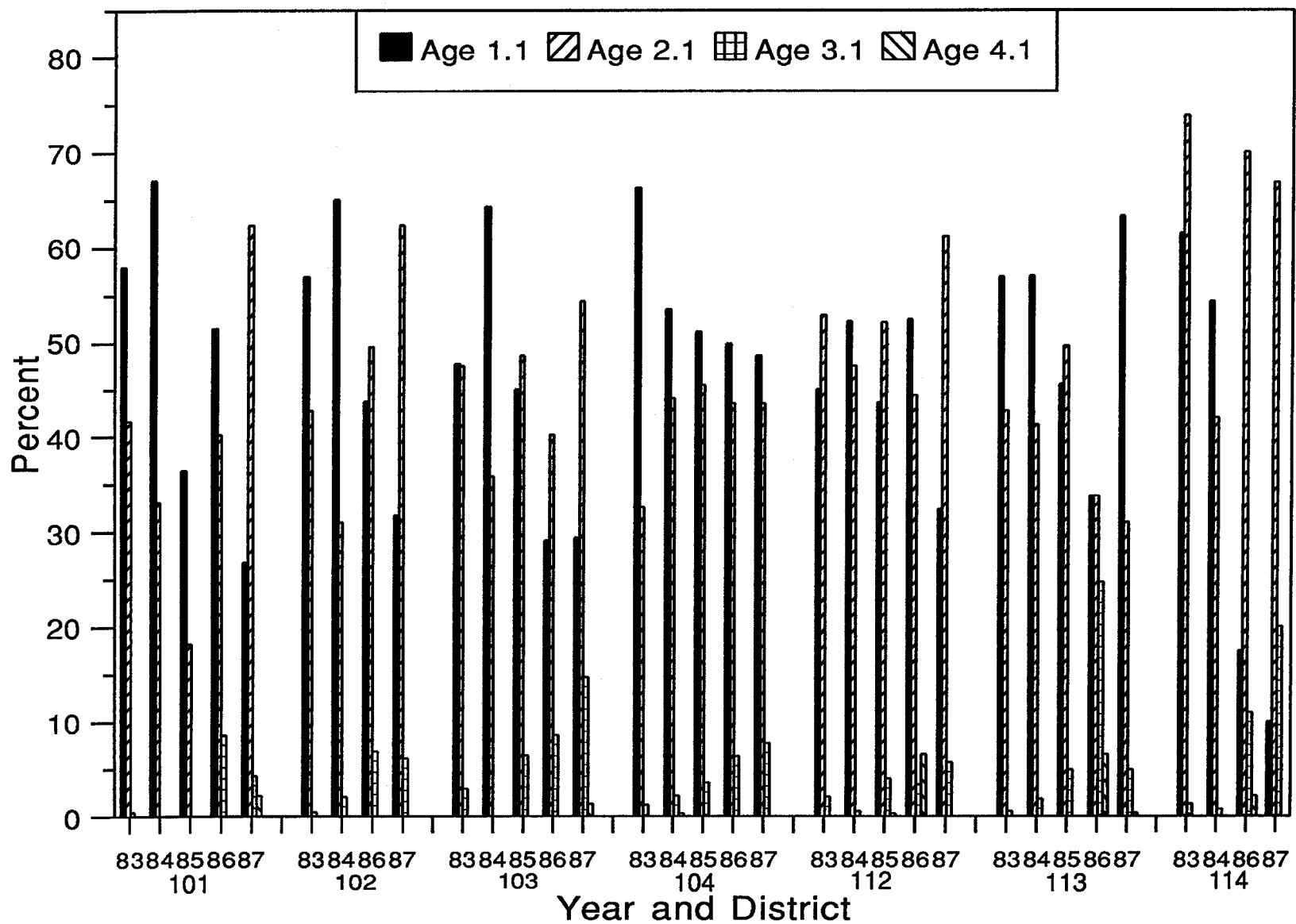


Figure 11. Age composition of the Southeast Alaska purse seine harvest of coho salmon by district, 1983 through 1987.

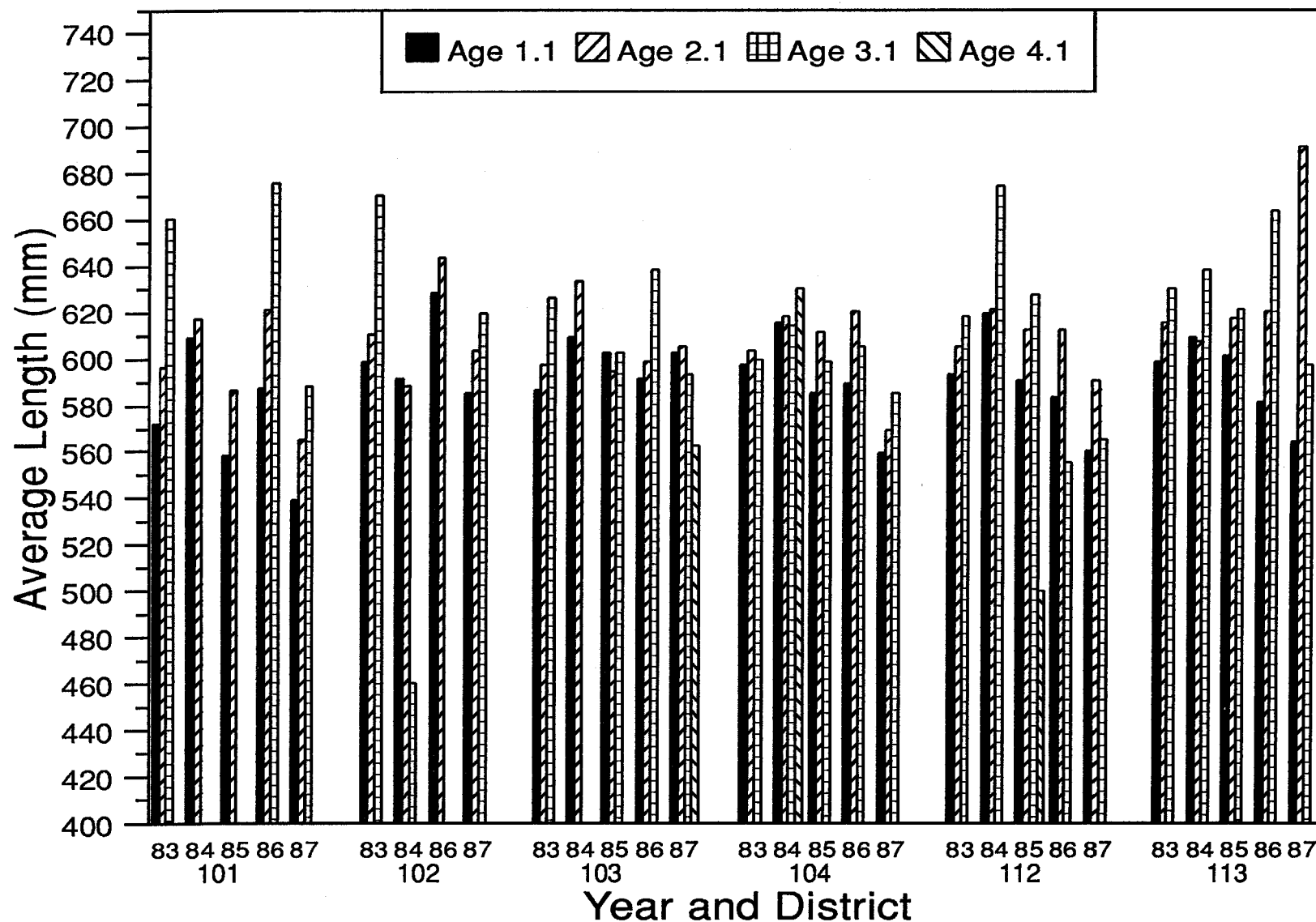


Figure 12. Average length (mm) at age for coho salmon harvested in the Southeast Alaska purse seine fishery by district, 1983 through 1987.

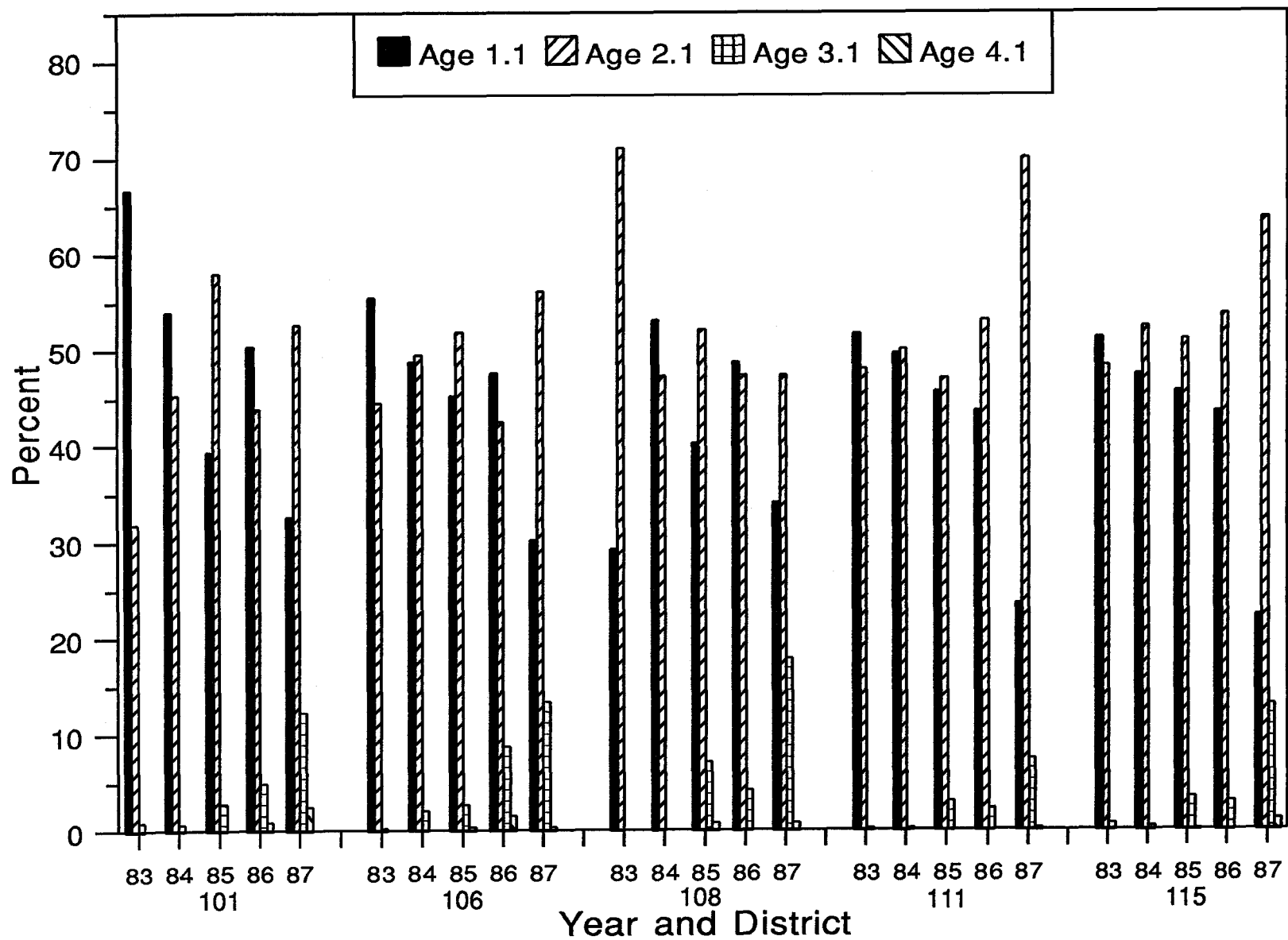


Figure 13. Age composition of the Southeast Alaska drift gillnet harvest of coho salmon by district, 1983 through 1987.

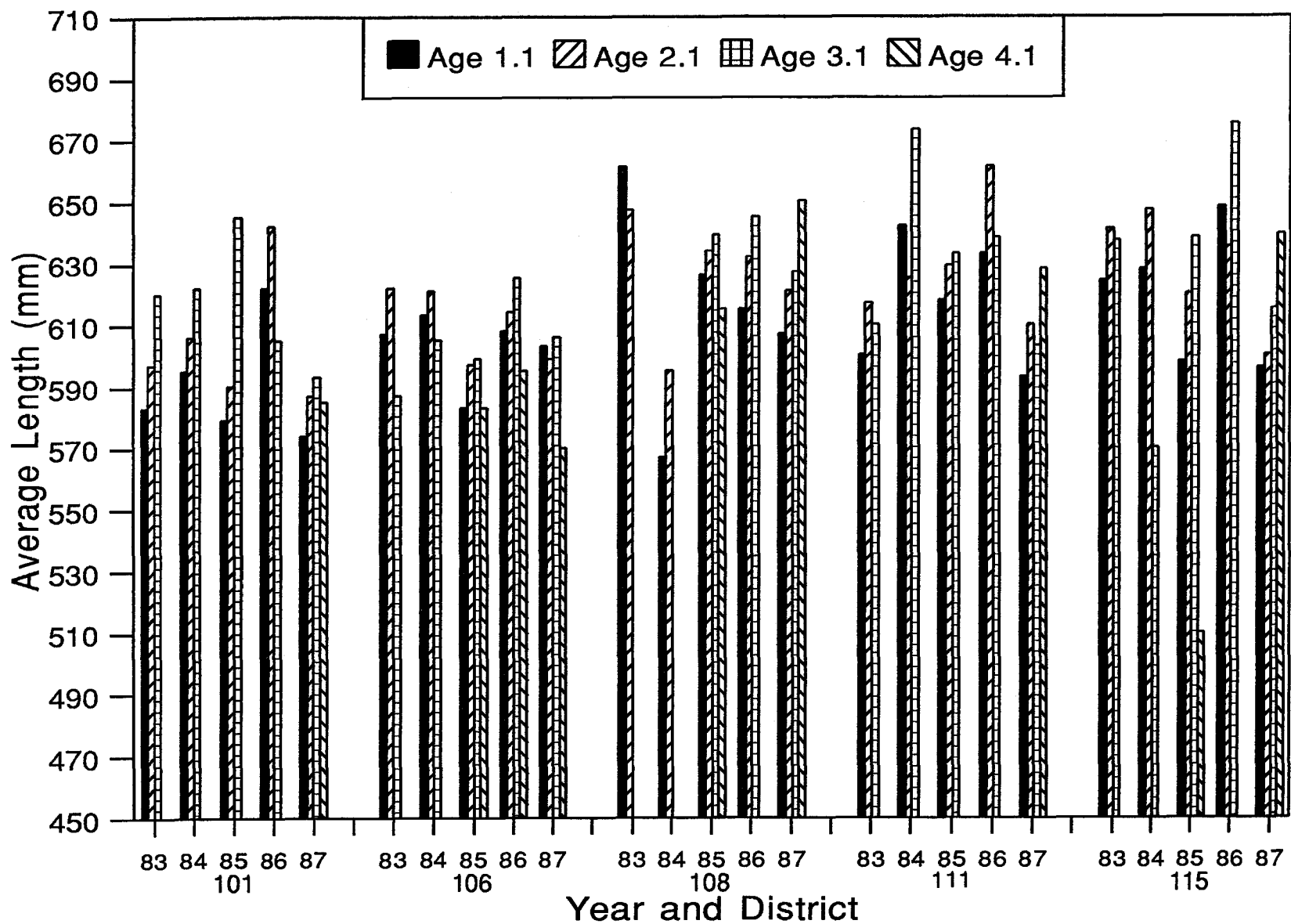


Figure 14. Average length (mm) at age for coho salmon harvested in the Southeast Alaska drift gillnet fishery by district, 1983 through 1987.

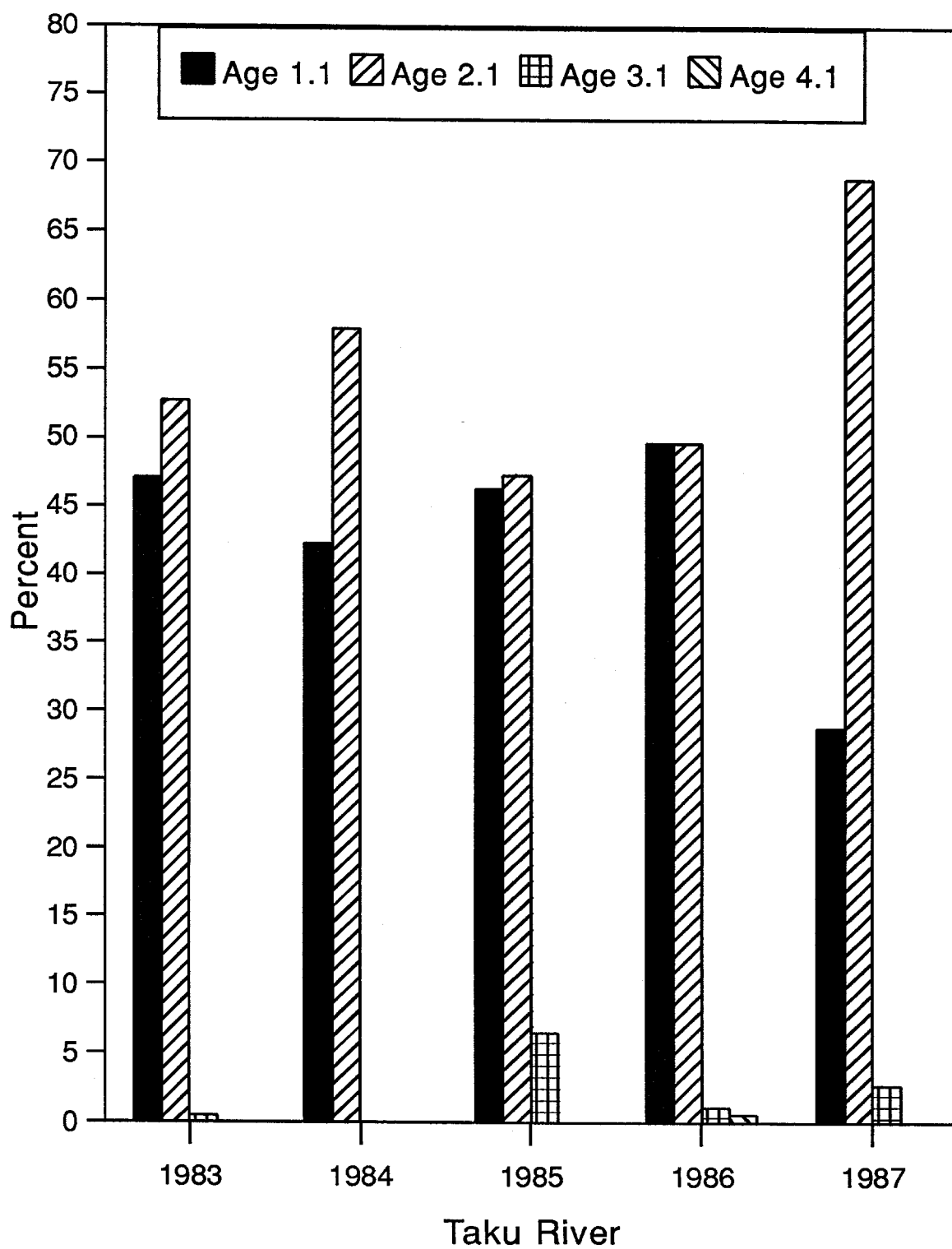


Figure 15. Age composition of the Taku River (Canada) inriver gillnet harvest of coho salmon, 1983 through 1987.

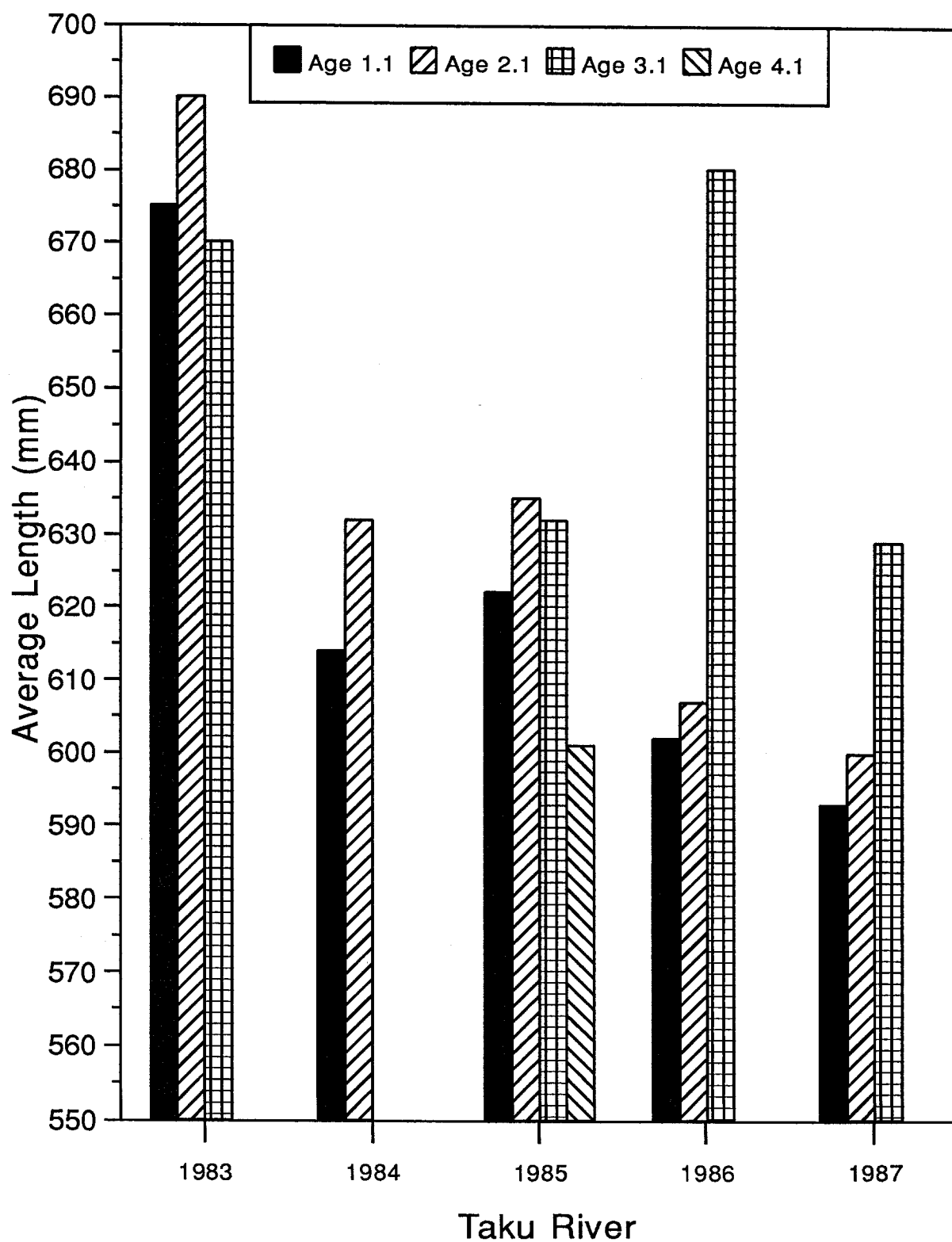


Figure 16. Average length (mm) at age for coho salmon harvest in the Taku River (Canada) inriver gillnet fishery, 1983 through 1987.

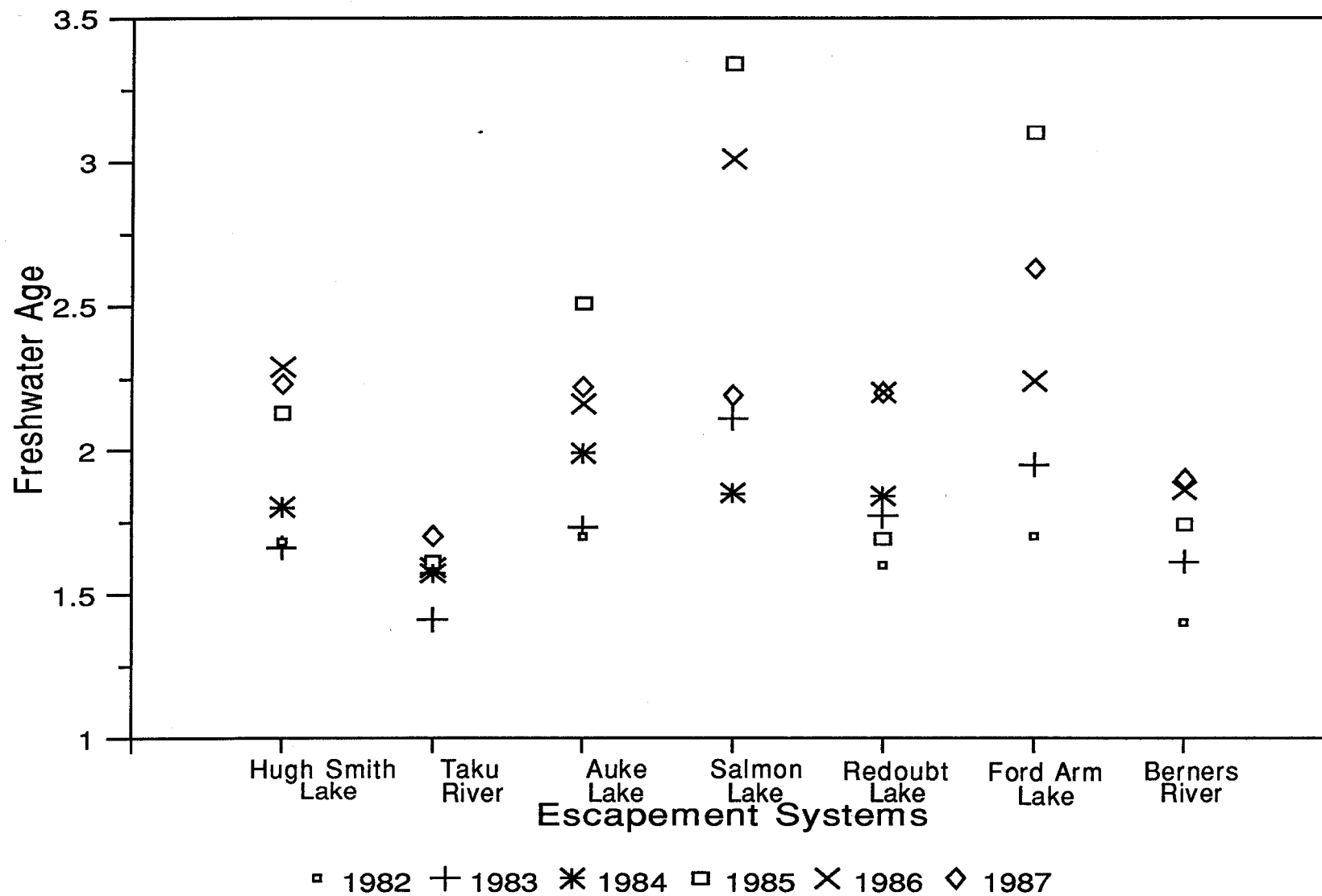


Figure 17. Mean Freshwater age of coho salmon sampled from escapements to selected Southeast Alaska lakes and rivers for the years 1982 through 1987.

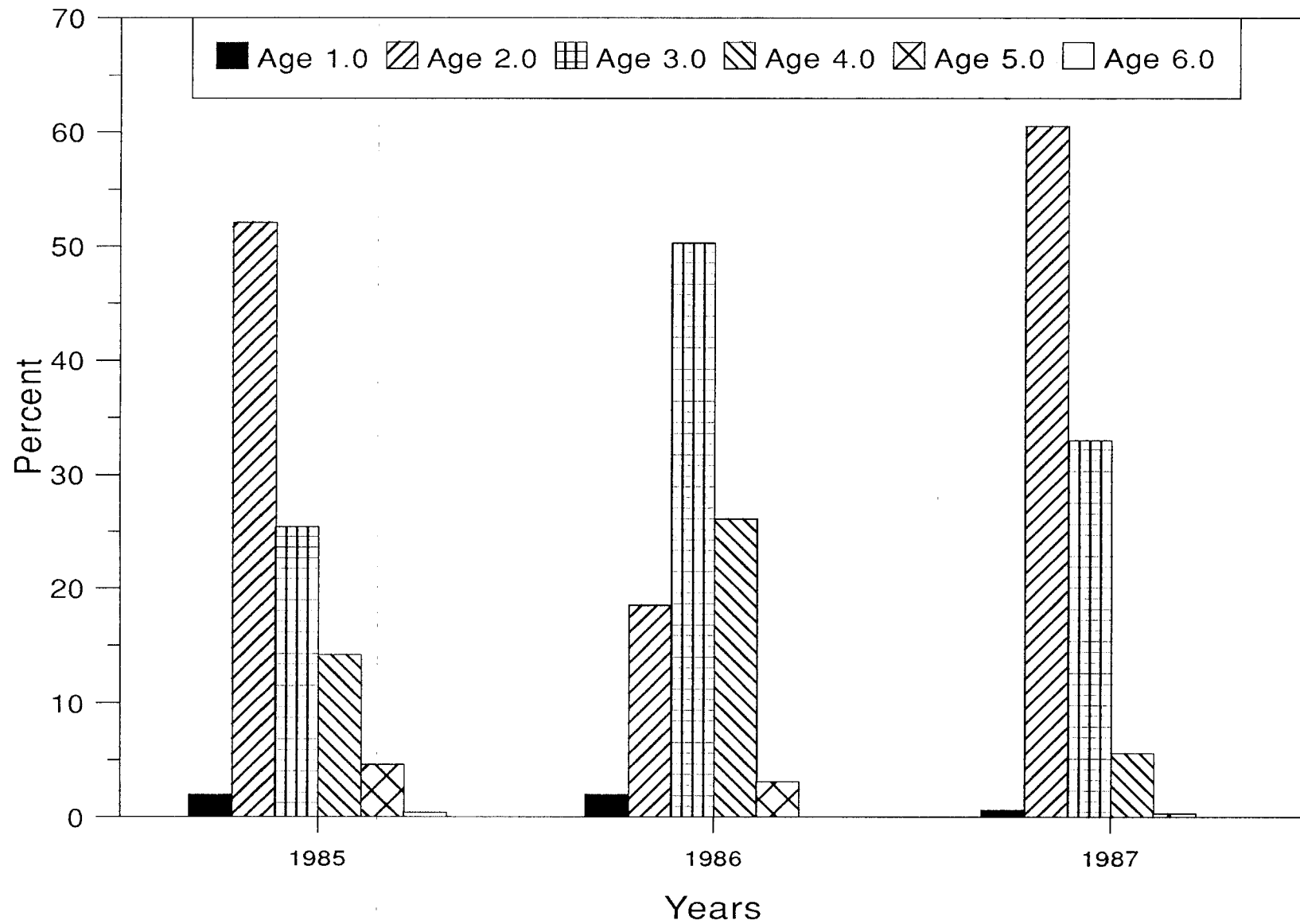


Figure 18. Age at outmigration of Salmon Lake (Stream No. 113-41-032) coho salmon smolts, 1985 through 1987.

## **APPENDIX**



Appendix A.1. Statistical weeks, 1987.

Statistical Week	Date	Statistical Week	Date
1	01-Jan 03-Jan	27	28-Jun 04-Jul
2	04-Jan 10-Jan	28	05-Jul 11-Jul
3	11-Jan 17-Jan	29	12-Jul 18-Jul
4	18-Jan 24-Jan	30	19-Jul 25-Jul
5	25-Jan 31-Jan	31	26-Jul 01-Aug
6	01-Feb 07-Feb	32	02-Aug 08-Aug
7	08-Feb 14-Feb	33	09-Aug 15-Aug
8	15-Feb 21-Feb	34	16-Aug 22-Aug
9	22-Feb 28-Feb	35	23-Aug 29-Aug
10	01-Mar 07-Mar	36	30-Aug 05-Sep
11	08-Mar 14-Mar	37	06-Sep 12-Sep
12	15-Mar 21-Mar	38	13-Sep 19-Sep
13	22-Mar 28-Mar	39	20-Sep 26-Sep
14	29-Mar 04-Apr	40	27-Sep 03-Oct
15	05-Apr 11-Apr	41	04-Oct 10-Oct
16	12-Apr 18-Apr	42	11-Oct 17-Oct
17	19-Apr 25-Apr	43	18-Oct 24-Oct
18	26-Apr 02-May	44	25-Oct 31-Oct
19	03-May 09-May	45	01-Nov 07-Nov
20	10-May 16-May	46	08-Nov 14-Nov
21	17-May 23-May	47	15-Nov 21-Nov
22	24-May 30-May	48	22-Nov 28-Nov
23	31-May 06-Jun	49	29-Nov 05-Dec
24	07-Jun 13-Jun	50	06-Dec 12-Dec
25	14-Jun 20-Jun	51	13-Dec 19-Dec
26	21-Jun 27-Jun	52	20-Dec 26-Dec
		53	27-Dec 31-Dec

Appendix A.2. Sample size required for approximate 90% or 95% simultaneous confidence intervals with precision  $\pm 5\%$  for age compositions<sup>a</sup>

Population Size	Number of Age Classes					
	90% Confidence			95% Confidence		
	2	3	4+	2	3	4+
500	176	218	224	218	251	253
1000	214	278	288	278	335	338
1500	230	306	318	306	377	381
2000	239	323	336	323	402	407
2500	245	334	347	334	419	424
3000	249	341	356	341	431	436
3500	252	347	362	347	440	445
4000	254	351	366	351	447	452
4500	256	355	370	355	453	458
5000	257	357	373	357	457	463
6000	259	362	378	362	464	470
7000	261	365	381	365	469	475
8000	262	367	384	367	473	479
9000	263	369	386	369	476	483
10000	264	370	388	370	479	485
15000	266	375	393	375	487	493
20000	267	377	395	377	491	497
25000	268	379	397	379	493	500
30000	269	380	398	380	495	501
35000	269	380	398	380	496	503
40000	269	381	399	381	497	504
45000	269	381	399	381	497	504
50000	270	382	400	382	498	505
60000	270	382	400	382	499	506
70000	270	383	401	383	499	506
80000	270	383	401	383	500	507
90000	270	383	401	383	500	507
100000	270	383	401	383	500	507
Infinite	271	385	403	385	503	510

<sup>a</sup> Sample sizes for infinite population size computed from  $n_0 = (c/d)^2$ , where  $d$  is the precision ( $= .05$ , here) and  $c = Z_{\alpha/2v} [(1/m)(1-1/m)]^{.5}$ ; for 2 classes,  $v=1$  and  $m=2$ ; for 3 classes,  $v=2$  and  $m=2$ ; for 4+ classes,  $v=3$  and  $m=3$  (Angers, 1989; see also Thompson, 1987). Sample sizes for finite population sizes are computed from  $n = n_0 / [1 + (n_0 - 1)/N]$ , where  $N$  is the finite population size (Cochran, 1977).

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